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GLADIOLUS SPECIALIST

F. C. HORNBERGER

CLARK STREET

HAMBURG

NEW YORK.

Helpful Horticultural Books

The flower growers book shelf is his most important "asset". Good books are not a luxury, they are an everyday necessity, the people who neglect the best text books, relating to their business, are overlooking one of the cornerstones of that business.

Below we list a few extra fine text books, but we only give them a brief description. If interested, ask for our Book catalog, which will give you complete descriptions on sixty-six (66) of the best selected books, covering every conceivable subject relating to the Garden, a postcard will bring this catalog.

THE STANDARD CYCLOPEDIA OF HORTICULTURE: (L. H. Bailey), 5000 illustrations, 3,637 pages, 3 volumes, fabrikoid binding. The How, Where, and When of all horticultural facts, a complete guide to all you want to know about every question that you wish answered. Price per set, \$25.00.

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GARDEN POOLS LARGE AND SMALL: (Ramsey and Lawrence). Very complete. By its use you can determine just the kind of pool you require. 41 illustrations, 122 pages. Price, \$2.50.

GARDEN FLOWERS IN COLOR

By G. A. STEVENS

400 color illustrations

For the first time, a large collection of the most popular garden flowers is reproduced in large, *full-color photographs*, alphabetically arranged and accompanied by brief descriptions and cultural notes. You will use this book every time you plan or plant a garden, make a color scheme, or combine plants in bed or border arrangements. An index of vernacular names makes it simple to locate or identify any flower.

310 pages; 6¼ x 9¼ inches; red cloth; \$3.75.

WILD FLOWERS

By HOMER D. HOUSE

365 color illustrations

This is the first one-volume wild flower book to picture the flowers in actual size, in *full-color photographs*. Complete and accurate descriptions are given in non-technical language. The wealth of pictures and the index listing wild flowers by both common and botanical names make it a simple matter to identify plants with unquestioned accuracy.

340 pages exclusive of plates; 9½ x 11¾ inches; cloth; \$7.50.

FOREWORD

This our regular annual Catalog is presented to you, with some additions and changes, we have added a few new departments, which we intend to develop and enlarge in the future, all the new merchandise we are offering, is of the highest quality and the finest workmanship, we trust that we may have your orders for this select new line of products, we are sure there is none better sold.

Prices are some higher this season due to several causes, chief among them is the very extensive nature of the drought conditions in many sections of the country, which has caused a pronounced shortage of bulbs, in particular the larger sizes of the better varieties. You will note that our list this season, represents the most popular varieties, selected because of their adaptability to our section of the country. This Catalog, and price quotations, cancels all previous lists and prices.

Our Open Forum

Under this head we will discuss all topics of general interest to the growers and lovers of the *Gladiolus*. It makes no difference if you are a small grower, or a large one, or even a novice or beginner; you will find something of interest in this department which we intend to enlarge, and continue in the future.

Under our present day specialization, we have forgotten much of the good advice of our early, pioneer Horticulturists who always maintained that we should secure our plants and bulbs as near home as possible; that is we should use stock that has been grown as nearly identical to our conditions as possible. We all know that taking a plant out of its native environment and forcing it into a new and often more adverse situation often results in much loss, often in stunting, or very poor growth. We call it getting the plant acclimated, which means inducing the plant to adapt itself in a short time to an entirely new situation as regards soil and climate; this holds good for all kinds of bulbs, roots, seeds and trees. All are subject to this law; a simple illustration is to examine tomato plants that have come up outside in the spring. You will find them very stocky, tough, wiry and hard, and able to stand much severe weather, and climatic changes. Compare them with greenhouse plants. You can take the same variety that has been grown in the greenhouse, and if you wish to plant them outside before the weather has become very mild, you must "harden them off"; that is adjust the plants by degrees to the changed environment.

We have found our greatest loss from varieties brought from distant parts of the world; we have imported many new varieties from Australia and other countries; very few have proven very successful except when grown under irrigation in warm or mild sections of our country. There are eastern and northern growers with good land and irrigation who do not grow their new varieties on their own farms, but contract the growing of such new things with some grower in California, or elsewhere, who has a mild climate and irrigation. You get very nice looking bulbs, but it will be up to you to test out and prove the worth of these *unproven* varieties, *unproven* for your particular soil and climate. Our losses along this line have been heavy; we do not grow our bulbs under irrigation although we have used irrigation in past years. We lease new land each year, land where no Glads have ever been grown before. That means that we move from farm to farm over a very wide area each year. As we grow millions of bulbs, we have used hundreds of acres of land of every kind and description of soil type, and we have many. Our county, Erie, has ninety-six soil types, from U. S. soil survey. We are highly experienced in the influence of all

kinds of soil on the production of bulbs and flowers; for two years we grew considerable acreage along the coast of New Jersey in connection with our crops here, we also have had experimental work in progress in Florida for some years. For nearly twenty years, we have acted as plant testers for the U. S. Department of Agriculture, testing and growing all kinds of plants, trees and shrubs collected in all parts of the world.

All corms, bulbs and seeds are merely plants in a dormant condition. A radical change of climate or environment will affect them, more or less in the same degree that growing plants are affected by very radical changes. I do not say it is wrong for an eastern grower to have his bulbs grown in California or elsewhere because practically all growers or dealers from whom you purchase, when they are short of stock, purchase for resale from every section of the country. The point I wish to make is that when the importer of Australian or other varieties imports new *untried varieties*, he should first find out all about them in his home environment. He should acclimatize them for you. If he imports them and has the stock grown for him in a very mild section, and then sells you the increase, he compels you to do all the acclimatizing, in particular if you live in a section where the season is more short and severe.

We have found that there are varieties that have been originated in the western part of our country that never do well in the east, and there are eastern varieties that will not do well in the west. How important then, must be the selection of varieties that have been produced in other parts of the world, in particular Australia and New Zealand where they have their longest day of the year when we have our shortest in December and who are very near the equator. I do not infer that all of their varieties will give us a lot of trouble, but I do say that you will gamble more with their varieties than you will with the home grown products.

Nearly all the wonderful exhibitions

of Glads, Dahlias, Peonies and other flowers, where the size and beauty are almost unbelievable, are grown in almost perfect conditions and surroundings; the environment that they like best to permit them to reach the very **PEAK OF PERFECTION**, and here I wish to call your attention to more deception in the show room, using Glads as our subject. The amateur and the novice are led to believe that their chances are equal in the show room. They do not know or understand that many of the finest exhibitions are staged by professional exhibitors, who understand the building of the perfect seed bed, and if they try to duplicate in their average soil they come to grief, but this is where the wise Exhibitor has his innings. He tells us that in order to grow wonderful flowers we must purchase his bulbs. After many trials and disappointments, we finally come to believe that there is something wrong with our soil, or give some other reason and make the best of things. The consistent winner of prizes in the show room does not do so by virtue of the quality of his bulbs, he wins by virtue of his seed bed conditions, and the particular environment, plant food, water or mulch his plants receive. My experimental work covering nearly twenty years has conclusively proven my claims.

Some years ago, I was one of the ten persons who helped to judge the Geneva, N. Y. Glad show. Our last work there was for the ten of us to decide on the most outstanding exhibit at the show and award it the President's cup. We all agreed that the exhibition of Palmer's Seedlings was by far the best thing in the show, yet the ten of us debated some time before we made the award. Each one realized the almost perfect seed bed these Glads had been produced in, an ideal soil, with every scientific aid available, fertilizer, humus, water and mulch in the right proportions for a perfect crop of *Gladiolus*. But we had to agree that it was not a question of how these flowers were grown, but how shown; that was of particular interest. There were no rules that required any particu-

lar cultural methods to be followed in the production of exhibition bloom.

I have been growing what I consider Palmer's best productions, but I have never been able to grow any of them as they have been shown on exhibition. I mean when I grow them under ordinary field culture without irrigation, or other seed bed aids. I consider Picardy head and shoulders above any other Palmer variety; it is one variety that we have found to give wonderful results under all kinds of soil and climatic conditions. Picardy built Palmer's reputation as an originator, I have not found any of his other seedlings that in any way approach Picardy. All the others appear to be an average run of good seedling varieties, but not as outstanding as our high pressure advertisers try to make them appear. I think it can be truly said, that practically every originator has been made popular by *one or two* very outstanding varieties, the rest for the most part are just a choice selection of good seedlings. If you will try to think back only ten years, how many promised world Wonders can you remember? How many have materialized? If you will refer to the National Symposium for 1933, that is the vote of all the leading growers, from coast to coast, averaging all kinds of soils, climate and conditions, you will find that it took TWENTY-FOUR ORIGINATORS to produce the FIFTY varieties that received the highest number of votes of approval as the fifty best varieties; each originator having one or more variety to his or her credit.

We have varieties that perform well only under irrigation conditions, some do well in one section of the country and not in another section, but the same is true of nearly all kinds of plants. Some Glads can stand drought and do well under very dry conditions, giving good performance where many others fail (example, Betty Nuthall). Still others have nearly every good quality, but cannot resist drought or adverse conditions (example, Mrs. P. W. Sisson). Then again there are varieties that are exceptional in most things, but propagate so

slowly that only irrigation growers can secure any particular increase (example, Frederick Christ). I do not mean that the varieties I have mentioned are the only ones having these traits, there are many that belong to each group, I merely cite a few well known varieties. Short stemmed varieties, like Diener's American Beauty, J. A. Carbone, Pfitzer's Purest of All, and scores of others are practically worthless without irrigation except in rare cases of wonderful soil conditions. I know a man near Syracuse that has such ideal soil he tells me that under his conditions these varieties come tall enough to make them salable as cut flowers.

Our many Glad shows and exhibitions are very desirable, and I have always supported them; they are educational, they show us the improvements going on, and what can be done in the way of growing flowers to mammoth size, but they do HIDE many things from the novice and the amateur gardener. Let us take a very recent, high priced introduction, SOLVEIG. It was shown on exhibition, grown at its best, received high awards and honors, advertised to the limit and praised to the skies, the men who invest heavy in new varieties (men who are equipped to increase stock rapidly) purchased to the limit of their finances; they will not tell you all its faults, in fact few of them mention its weakness, as some of them say they must get their money back, but who do you think is left HOLDING THE BAG? If you will refer to my old catalogs, you will notice I give my honest opinion of Solveig, and how it has performed for me. As I have grown it as long as other growers, three seasons, I have had time to form a fair opinion of the variety, and the man who introduced it published Prestgaards story of how it originated, and you do not have to be a plant breeder, to understand that the mating of such a weak type, that gradually "petered out" could not result in strong growing seedlings of the best characteristics, constitution and habits. But men are not breeding for good qualities to-

day, but for the longest spike, the most open, the variety that will win high honors on the show bench, but in many instances proves a failure when grown outside, except in the milder sections and by the use of irrigation so the plant will not be forced to show its WEAKNESS, where it will not have to RESIST ADVERSE soil and climate. These varieties would pass all right if all growers of Glads lived in very mild sections, had irrigation and almost ideal soil, and seed beds, but unfortunately, most of the people who grow Glads do not have any of these advantages and aids to nature and their plants must struggle along in the ordinary adverse situation.

Varieties that perform well in nearly all sections of the country are not so plentiful. Pfitzer's varieties have been much advertised and praised by irrigation growers, but we have not found many of them truly outstanding, although I do think that they have used care in introducing Glads that will make a good, high average. I think Maid of Orleans one of their very best; their introduction of Blue Triumphator was one of their greatest mistakes; it belongs in the class of Solveig, as a group of weak, erratic growers. These varieties when given almost ideal conditions can be grown to wonderful beauty for the show room, but are practically worthless when grown under average conditions of soil and climate. Blue Triumphator cost me at the rate of \$135.00 per bulb to import, including duty and forwarding charges; Solveig cost \$50.00 per bulb, and I am sure that only the growers who used irrigation methods of production ever got their money back or made any profit from them. Coronado has been another "pet" of the irrigation growers, but of no value here. Pirate (Palmer) is another that we have grown for three years and found so unsatisfactory that we have discarded it. Lily of Gold (Kunderd) when introduced was to be one of the World Wonders; with us it is practically worthless; we have discarded it. Perhaps it may be all right in some other part of the country. Mary

Jane (Kunderd) is another that was highly advertised; we have discarded it; it has but small value here. Miss Des Moines is another that when first introduced with many awards to its credit was very highly advertised, and its winnings "played up". With us, it is not satisfactory and we list it only for such customers as are able to grow it well. I could continue almost indefinitely, but space is limited.

NOMENCLATURE AND REGISTRATION of new varieties; personally I regard this as the pet hobby of the American Gladiolus Society. Their book Nomenclature has listed practically all varieties registered and un-registered produced up to 1930. By the A.G.S. rules, a variety that has been introduced after 1930 must be registered by them, otherwise it cannot compete for any prizes offered or controlled by the A.G.S., but all un-registered varieties that were introduced prior to 1930 may compete for their prizes.

This of course is compulsion on the part of the A.G.S. to make every originator register his variety with them; if he does not do so, his variety cannot compete for their prize awards, but I think more people belong to independent Societies than to the A.G.S. so their rules can not influence all originators. Here are independent groups who have no connection with the A.G.S.; The New England Gladiolus Society; about equal in membership with the A.G.S., The Greater Detroit Gladiolus Society; a very large and important group, and the New York State Gladiolus Society. All of these independent groups only charge \$1.00 per year for membership, while the A.G.S. and its affiliates charge \$2.00 per year for membership. I will receive and forward any membership sent me, if for the A.G.S. or its affiliates, or for any independent Society. You do not need to have your varieties registered to show them at the exhibitions of the N.E.G.S. or any other independent group. See our special offer on another page concerning the New England Glad Society.

The New England Glad Society's great, new Year Book entitled, "The Gladiolus" will be worth in my estimation \$5.00 to any flower lover's library. It will sell at book stores for \$1.75 per copy; you will get a copy free with your membership which will cost you only \$1.00; let us forward same for you. See our offer elsewhere.

The A.G.S. makes its claim that the aim and object of "registration" is to prevent duplication of names, and in their rules, state that they *will not register* a name already well known in commerce, but they have already registered (two) of my variety names that were well known in commerce prior to 1930. We introduced AFLAME in 1924-25 and Kunderd introduced his A-FLAME in 1929. The A.G.S. at once registered the name for Kunderd and when I applied for the registration of our variety they refused me stating that the name had been registered for Kunderd.

FACTS OR THEORY?

I have in mind a grower who devoted over one-half of his 1934 catalog to general discussion and advice. I am sure much of it was mere assumption. Such persons, because of certain experiences which they "dove-tail" together, conclude that their ideas are facts. I have always realized that scientific fact must be proven in a very definite way; it is the result of very careful and exact experiment that works out the same way each time, under the same identical conditions. As conditions of soil and climate are so variable, and each section has a vastly different soil and climate, it must follow that any worth while facts must be the result and conclusion of a number of honest investigators located in widely different sections of the country. For that reason when I say that "Sports" are more common than many realize, I have the work of a host of tireless investigators to back up my claim. That is much different then the statement of this grower who states, "Sports are so extremely rare that they would never

turn up in one garden out of a hundred." That statement is mere "assumption"; this man assumes that because he has not experienced many sports in the range of his particular environment, that they must be very rare.

Plants as large, hardy and supposedly difficult to change as an apple tree, all come within the range of variability. This law is well understood by scientific breeders and investigators; read our various articles on this subject in this catalog. Our Geneva, N. Y. experiment station reports that there are now over sixty (60) known sports of the Stark "Delicious" apple, and all of you who know apples, realize the "Delicious" is one of our modern apple productions. This same grower says that there is "unstableness" in many Glad varieties; let me say that there is more or less unstableness in practically all kinds of plants, trees, seeds, bulbs, etc. Each one of them is a plant in some form or other, but this unstableness is nothing more or less than the variable law in all plant life that causes change, often evolutionary changes without the aid of crossing or hybridizing, either by man's intention, by insects, wind or other causes. These "sports" are often distinct improvements, a "stepping up" or on the other hand a retrogression or an inferior plant may result; often it may be practically the same except that some minor change like color alone will result.

It seems to be a well established "hobby" among many growers to just assume that all radical changes in color are caused by fertilizer, hot sun, adverse climatic conditions, etc., and that they are "all" but temporary changes that disappear as soon as conditions become more favorable. Of course this line of reasoning is the result of "mere assumption" because if these men had experimented for years, segregated these plants by themselves, put them under separate labels, grew them in such manner for years, and noted how their increase would appear, then their conclusions would harmonize with the conclusions of our scientific men. There is a

vast difference among Glads, some are truly more unstable, or let us say some are much more variable, than others. I know of some varieties that very rarely produce a sport, but there are some where the sports are so frequent that I dare to assume that when grown in the average small garden, the owner would discover "sports" quite often indeed.

If interested in this subject, we can supply last season's catalog with a long article devoted to this subject.

We find many sports each year, and we have found them ever since we began to grow Glads. Scores have been labeled, grown, tested and then discarded, but we have proven that they were sports and not the result of temporary weather or other conditions. We now have growing under label sports of many varieties; here are just a few. Minuet, from white to purple, several of Aflame, our Alight is a sport of Aflame, we have another we will name "Embers", and several more that have not been tested so long, we have several of Dr. N. Shook, also a number of Mrs. L. Douglass in colors from a lavender orchid to almost white, we have sports of Aristocrat, Anna Eberius, Capt. Boynton, Evelyn Kirtland, also sports of Marmora, Pythia, R. Diener, Mother Machree and many others.

SELECTION: Many kinds of plants need rigid selection to maintain trueness to their original type; by selection we weed out inferior plants, increase the vigor of our stock, and build up superior "strains". It makes no difference if it is plants, seeds, and trees or if it is some kind of animal husbandry; rigid selection is the road to higher efficiency and superior products.

WHAT IS VARIABILITY? Among Glads, as well as among other plants, trees, bulbs, etc., there are always some varieties that show more variableness than others of their species. Variability is a "slipping away" from the true type and characteristics of the original plant. I have known of plantings of Marmora where you could walk through the rows

of bloom, and every few feet pick at least one flower that had some striping or marking of the Emile Auburn color on its petals, sometimes an entire half or one side of a spike, at other times only one-half of a petal, or even a small spot. For several years we have had Marnia produce pure yellow sports, some become permanent, others revert back to true color the next season. For several years we have had some Marnia flowers where the color of one entire side would be orange, the other entire side pure yellow. Potatoes propagated entirely from the tuber must be rigidly selected if we wish to maintain high quality seed, true to the original type.

SEARCHING FOR BUD SPORTS IN FRUITS

By A. D. Shamel and C. S. Pomeroy

(Note: The following is a short extract taken from a long article published in the Rural New Yorker, October 13, 1934 issue.—F.C.H.)

"The ever-increasing number of striking bud sports which have been reported by fruit-growers during recent years indicates a growing interest in this subject. However, through an experience covering more than a quarter of a century in this work, the writers have found that only relatively few orchardists understand the nature and significance of these variations which arise from sudden heritable changes in the body tissues of the plants.

Many of the most valuable bud sports known in fruits have been discovered by growers who live and work with their trees or plants throughout the year.

Bud sports may occur as limb, entire tree and individual leaf or fruit variations. They may be discovered through the presence of abnormal foliage or fruits, and often both the foliage and fruits have observable characteristics markedly different from those that are normal for the variety. In view of the fact that fruit differences are usually the most conspicuous ones in an orchard survey and are of the greatest commer-

cial importance, the following suggestions are offered as an aid in the search for the sports bearing fruit that is different from that of the parent variety in one or more clearly recognizable characteristics:—Furthermore, limb or branch sports in otherwise normal trees are usually more easily identified than those occurring as entire-trees or otherwise, so that in the beginning, at any rate, a search for striking limb variants is likely to be most satisfactory.

“Many valuable strains and varieties that originated as desirable bud sports are in commercial culture in both citrus and deciduous fruits and other vegetatively propagated food plants. The production of many fruit orchards has been greatly improved during recent years by eliminating through top-working or replanting inferior strain trees that resulted from the unintentional propagation of undesirable bud sports.”

COMMENTS by F.C.H.:—Read our article “Facts or Theory?”; you will note that the authors of “Searching for Bud Sports In Fruits” have been at this work for 25 years, and have collected a vast amount of data. I have only printed a few brief extracts from the article; in particular note the last paragraph above, “unintentional propagation of undesirable bud sports.” Among Glads, the “color bud sport” is often pulled up as a “rogue”, that is as some other variety accidentally mixed with the bulbs, but all sports are not of color alone, some never appear as a color change, but may appear as inferior plants, growth or production. All of these unnoticed traits would ordinarily be “put down” as the result of soil, season, drought, hot sun, and adverse conditions in general. Sometimes these factors do cause these things, but at the same time many “changes” do not right themselves, and so become a fixed characteristic of these plants. Their unnoticed propagation with the original stock causes a “lowering of quality”; the variety is said, not to be as good as it was at one time.

When you practice a system of “selection” that all seed producers should practice, you will be building up the quality of your stock. Superior strains are built in this manner. In color sports where the change is most radical, for example where a bright red variety will produce an entire spike where all the color is light pink or white, if you label and test this plant, you will find that the next season some of these “changes” will become permanent while in other instances the same plant that was pink or white in color will be back to its true color. As a rule all color changes that remain the second season have already become “fixed” or established in the new characteristics; this then is the variable law in all plant life.

HOW TO PLANT AND GROW GOOD GLADS

If you will read all the information we print in this catalog, you will find that it will help you to understand these instructions much better. The bulbs you use to plant, should be stored right, fumigated to destroy any thrips, and even if no thrips have been found in the past, fumigation for that purpose is the best kind of precaution that you can use. Just before planting your bulbs they should be soaked in some kind of a dip, to help maintain the bulbs in a healthy condition, and destroy any disease organism, such as scab, etc., that may be on the bulb, but not always visible to the naked eye. A cheap and easy to use disinfectant that many of our largest growers use, is to take one ten cent can of lye, such as you purchase in the grocery store, and mix with 20 gal. of water, put your bulbs in cloth or burlap sacks, and let them in this mixture from 10 to 12 hours, then remove bulbs, dry them off, and plant them, there are many other dips, but as I do not regard them as any better, and not as easy to handle, I will not mention them here.

DISTANCE AND DEPTH: As a rule more people plant Glads in rows like garden vegetables, than are planted

in beds. Glads are more adapted to cutting than as garden ornamentals, but if you wish to plant in beds, plant about six inches apart and 4 to 5 inches deep. When planting in rows, you may make them most any width, all depending on how much space you have, from 18" to 36" all are practical. Plant in furrows or trenches, large bulbs 3 to 4 per ft., and medium bulbs 4 to 6 per ft., small bulbs as many as 8 or 10 if desired, plant the larger bulbs 4 to 5 inches deep and smaller bulbs more shallow.

HOW TO LABEL: We use a wire stake, 2 ft. long, to the looped end is fastened a new wooden tree label, that is painted white on one side. You can write any memo on that painted surface and it will not wash off, in one season, but do not use the same label the second season. These labels are very cheap, so you do not have to take any chances on faulty labelling.

CULTIVATING AND FERTILIZING: The main object of cultivation is to kill weeds and form a soil mulch that will keep the soil from getting hard and cracking open. Cultivate often, and kill the weeds before they get large. Do not cultivate too deep, if your soil is very good, you will not need to fertilize very much, but extra good flowers require enough plant food, and ample water, at spiking time. It is safe to mix well with your soil, sheep or cattle manure, which comes dry in 100 lb. bags, bone meal is also good, all of these are good plant foods, that will show results in your garden for more than the first season. Where you can not readily secure these materials, a good grade of potato fertilizer, well mixed with your soil will greatly assist the growth.

WATERING: Watering can be overdone and result in harm. Different types of soil will require different amounts of water, it all depends on the nature of your soil, the amount of humus, etc. As a rule heavy soils will not need as much watering as light soils, then also much depends on the kind and nature of the sub-soil. I think it safe to

say that in the average good garden soil, that you give at least one good watering a week, this of course will be regulated by the amount of rain you get, if you have a lot of rain, you may not require any extra watering. So much depends on your location, your rainfall, and the kinds of soil you have, but when you water, do a good job, wet the ground, so that the water will go below the roots, then when the top dries, cultivate before the ground gets too hard. As a rule extra water helps much when the spike begins to make an appearance.

CUTTING BLOOM: As a rule cut when first bloom opens, let four to six leaves remain on the plant to help ripen the bulbs.

DIGGING: In our latitude, we plant most of our bulbs from May 1 to June 15, some are planted before and after these dates, but this is the average for the small garden. We dig the last of September and early October, but if early planted varieties, that have flowered early in July, begin to show any signs of ripening foliage, before that date they should be dug; as a rule dig the bulbs first that have been planted first. Lift plants, cut the stalk off *tight* to the bulbs, do not let any stub on the bulb, let them in the sun and air for a day or two, then put them in a dry airy place for a few weeks, do not permit your bulbs to be over 4" or at the most 5" thick in any wooden box or basket, never use metal or crockery, etc. If possible to have special trays, make them 4" deep with wire (fly screen) bottoms. After several weeks the bulbs will have lost that new look, and will begin to take on a brownish cast, they have now shrunk somewhat, and you can very easily remove the old mummified bulb and roots, then let them stand another week or so to dry off more fully, after this you may add naphthalene, as directed, and put them in winter quarters, which should be dry, cool, airy, and frost proof. Do not remove the outer husk, you will need that over winter, it may be removed just before planting, but is not necessary.

GERMINATING BULBLETS: Due to their very hard shell, bulblets are somewhat insulated against moisture, they are often kept in an ordinary cellar for two years and give as good or better germination, than newer bulblets do. That hard shell prevents the tiny miniature bulb, that is inside, from contacting the air and so drying up. You could not keep bulbs in the same condition that you can keep the bulblets. While this shell is an advantage, in preserving the bulblets, it is also an obstacle in getting them to grow, because if planted dry, in dry ground, the chances are that only a few will come up. They will be preserved in the ground in the same manner as in storage, so we must use man's devices to induce the moisture to penetrate that shell, and so start that little plant to grow. Many devices,—methods are in use, some use strong acids, lye, and other materials, some mix with wet sand and let stand in the sun, or heat until they germinate, some strip part of the shell from the higher priced varieties, but this method would be too slow and costly for cheaper varieties; perhaps the most practical, is to put your bulblets in cloth bags; soak them in water several days, then place the wet bags on the ground where the sun can reach them with its heat, cover the wet bags with a heavy blanket, keep wet, examine each day, turn the bags from side to side, and also stir the bulblets, when they show small sprouts and signs of sprouts, you will know that the moisture and the heat combined have induced the moisture to penetrate the shell and so start the germ to grow. Now you can plant them in shallow drills something like garden peas, about two inches deep, and from two to six inches wide, do not sow too thick, after planting soak the bed with water. Covering the rows with heavy bags for a short time will help to hold the moisture longer and so cause quick germination, remove bags as soon as sprouts appear.

IRRIGATION: Perhaps in no other place is irrigation so desirable as in germ-

inating, and starting the bulblets to grow, larger bulbs are planted deeper, and even moderate moisture starts them to grow, and they root deep, so that in all sections of the country, where you have ample rainfall for a good crop of garden vegetables, you can grow very nice flowers without any artificial irrigation; of course, it helps if you have it available, you can produce a bigger crop, and better flowers, but irrigation *will not* give you better quality bulbs. Some growers use irrigation to get a bumper crop of bulbs and flowers, then they advertise that bulbs grown by irrigation are superior, this is untrue, if anything the bulbs that are grown slow and not forced in growth are superior as seed stock, scientific proof has been established.

TEST YOUR SOIL: Experiments concluded by our experiment stations and other investigators have proven that what they term the P.H. value of soil and its range of acid or alkaline condition has much to do with the yield of your crops. As each kind of plant grown needs slightly different requirements, it is important that you have your soil tested for any important or valuable crop. It may mean a difference of 50% or more in yield. If you live where there is an active membership of the Farm Bureau Movement, you can secure free soil tests and other valuable information by becoming a member, or you can ask for facts from your state agricultural department.

VALUE OF SOIL TESTS

Dr. H. J. Wheeler has discussed the pH value of soils at some length in several issues of the Rural New Yorker. He shows us the importance of soil tests, to determine the acidity or alkaline condition of any soil, he points out that where soils are supplied with plenty of humus, they are not influenced as much by any extreme condition of acidity or alkalinity. He says—"In a word a soil well supplied with humus from turning under green crops or animal manures will injure plants less at any given very high or

low ph value, then would a purely mineral soil of identical texture."

Prof. A. M. S. Pridham of Cornell says, "In reference to the optimum conditions of acidity, best results with gladiolus, tulips and other bulbs can be had with a ph of 6-6.5. Soil which is alkaline in nature and having a ph of more than 7 are seldom satisfactory."

NOTE: The soil test range of ph value below 7 indicates degrees of acidity and above 7 the various degrees of alkalinity. It has been shown that the ph condition of your soil will greatly influence crop production or a very favorable ph condition may result in nearly doubling some crops.

TILLAGE: I do not think that enough people realize the importance of tillage, plowing, and preparing the ground where they intend to grow their crops. I know of instances where deep tilling has more than doubled crop production. Your soil must not only be plowed deep, but it must be made fine—pulverized, and the lumps well broken. I know of no better equipment than the use of the Tillivator. We devote another part of our catalogue to the description of this machine. This machine has knives and tines which rotate rapidly and CHURNS OR PULVERIZES the soil. It plows, disks, and harrows the soil all in one operation. It is the ideal seed bed builder and at the same time very diversified; you can regulate its depth and can cultivate or do other work equally well.

MANURE — GREEN CROPS — FERTILIZERS: I think the soil experts all agree that to have a good soil one must keep on adding something each year. You must BUILD year by year. What is put in this season will not all be used at once, but if you build in the right way your soil will become more productive each year. The use of manure or green crops plowed under is most important in your building program. The fertilizers are added as required for whatever kind of crop you plant. We can not give general instruc-

tions that will prove practical in the highest degree, so it is important that you have soil tests made and secure expert advice from a local agent when you attempt your soil building program, and soil tests are most important; make SURE.

DISEASES OF GLADS: The most common is scab. I do not think any planting is 100% free of scab. I know of one mid-west grower who has made such a claim, but I have bought his bulbs and found plenty of scab on them. To verify my finding I have permitted our state nursery inspector to pass on them; and let me add here that I have purchased bulbs for about twenty years and from nearly all the leading growers and originators in this country and I have not found a *single individual grower* who has not sold me diseased bulbs at some time or other. It has not always been scab; often the more dangerous Hard and Dry Rots. There is not one single grower who can maintain his stock 100% free of disease. The important thing to consider in growing Glads or other crops is control. Here is where breeding varieties of high resistance comes in. Gladiolus disease may live in your soil several years although you discontinue planting bulbs in that soil. So it is most important to destroy all diseased bulbs, plant on clean ground, and use some good disinfectant to dip your bulbs in. Most growers use the Lye treatment or Corrosive Sublimate (Bichloride of Mercury) or Calogreen as a dip.

There is much difference in opinion among experts as to how effective these dips will prove. Some do not think they help much, while another authority will make positive claims. Let us take Calogreen: Dr. Miles of the Mississippi Experiment Station has made very extensive tests with Calogreen and his charts show wonderful control, claimed by him for Calogreen. On the other hand, the Michigan Experiment Station at Lansing makes the claim that Calogreen has produced practically no measure of control in their experimental work, but it is my

opinion that Dr. Miles has carried on his experiments on a much larger scale than has the Michigan College. Dr. L. M. Massey, our well known expert at Cornell, seems inclined to agree with the Michigan College. Personally, I think Calogreen very good when you use the right kind of soil. I do not think it will help very much were you to use heavy or wet, poorly drained soils, or even soils that have fair drainage, but that drain too slowly; that has been our experience. The same can be said of the other dips. You must use the best type of soil at all times to keep bulbs free of scab; then of course, there are the varieties that are very much inclined to scab (example, Marmora).

I know a flower grower, who grows many acres of Glads for cut flowers only, he never paid any attention to scab, and I dare say that nearly every bulb will show some signs of scab; he never loses plants from neck rot, to any serious extent except, when he plants on wet, heavy or poorly drained soils; he always has very fine flowers, that bring the best prices.

Scab or neck rot is never very troublesome except, when grown on poorly drained soils, then you will lose a big percentage of your bulbs, but all will depend on the particular resistance of the variety, some will suffer to a much greater extent than other more resistant kinds. Many of our most highly experienced plant pathologists have stated at various times that they do not believe that any kind of dip will remove all the bacterium or organism that causes so-called "scab" disease. If that is true, then every claim of any one grower who states, his stock to be 100% free of scab must be false, I know of one of our most noted scientific men who is regarded as one of the foremost investigators, of Glad diseases, he has stated that in his opinion, he does not believe that any disinfectant known will help very much in scab control; he has much more practical experience along this line than any one particular grower, as it has been his business to give advice to growers, resulting from his experimental work.

GLADIOLUS THRIPS

We have published much information on this subject in the last two years. We have practiced what we preached, and as a result our state inspector, has declared our plants 100 percent free of all signs of thrips. That is indeed a gratifying result, but even at that we will not neglect all precautions and fumigation. I do not know if I should repeat all the advice given in previous catalogs, I will condense the information this year, and if you want more detailed information just ask us to mail you a copy of our last year's catalog. We find that for the person with a small quantity of bulbs, that the naphthalene treatment is likely the most practical, but we use the ethylene dichloride—carbon tetrachloride, gas treatment. We have built a tight room, where we can confine all the gas, without any loss, we heat this room to 70-75 F. and place the bulbs in this

tight room for 24 hours, it is easy to use, very cheap, and perfectly harmless to the operators. It is very practical to use, even for the very smallest collection of bulbs, but it will require some kind of a box or can, where you can confine all the fumes, for at least ten hours, 20 to 24 is better. The temperature of bulbs and the room must be at least 70 F., so that the gas is liberated in the proper time. The bulbs should be warmed in a room that is above 70 F., before they are placed in the fumigator box, the box, must be kept in a room above 70 F., at least while fumigating, so the inside temperature will remain about 70 F. The lid must be clamped down, or sealed tight, if not perfectly tight, you will not get good results. We use 14 lbs. of the liquid, to each 1000 cu. ft. All smaller capacity, figured on this basis. We pour the liquid in large flat pans, and set at

the *very top* of the stack of bulbs, never on the bottom. The only disadvantage in using this has been, the inability of the average small user, in securing it, but we have listed this material this season, for the convenience of all who wish to use it. As statements have been published from time to time that thrips, do over winter outside, we wish to deny

that statement, as the latest information from the men who study thrips under the Department of Agriculture's supervision, state that thrips can not over winter outside where the soil freezes. The Bureau of Entomology has not been able to overwinter thrips outside at Washington, D. C.

Rare New Novelty Flower Seeds

We list below some of the finest new novelties in Seeds; our stock is very limited of these fine new introductions, so be sure we receive your order before May 1.

ALL PACKETS OF SEED FULL
VALUE FOR PRICE PAID.

NASTURTIUM DOUBLE SWEET SCENTED GOLDEN GLEAM: The large, double, sweet scented golden-yellow flowers on long stems are borne profusely, well above the bright green foliage. Packet, 15c; ounce, 25c.

ZINNIA DESERT GOLD: No word description can do justice to the dual tone beauty of Desert Gold. Plants are from 2½ to 3 feet tall, equally effective in daylight or under artificial lights. Those who appreciate the finest in ZINNIAS will welcome Desert Gold. Per packet, 25c.

DIANTHUS LACINIATUS SPLENDENS: Free flowering and easily grown; perhaps this new Dianthus is the most striking ever offered. The flowers are very large, over two inches across, in a brilliant shade of crimson, with an extra large, boldly contrasting, glistening white eye. Price per packet, 25c.

NASTURTIUM SWEET SCENTED SCARLET GLEAM: When well grown in a large patch, has been likened to a huge, fiery carpet spread over the ground. New and rare. Stock limited. Per packet, 25c.

COSMOS EARLY KLONDYKE ORANGE FLARE: Extra early; in full flower in less than four months after the time it is planted. Color vivid orange, stems long and wiry; well adapted for cutting. Per packet, 25c.



Descriptive List Gladioli

BOLD FACE TYPE USED FOR VARIETY NAME AS (AFLAME) indicates our very best varieties and in particular all such varieties that seem best adapted to our soil, climate, and methods of growing. Varieties that we describe with light type as (Miss Des Moines) will indicate varieties that have not given very good performance here under the same conditions, although they may be satisfactory in some sections of the country and under favorable conditions.

Abbreviations used following a variety name as (Ex.) indicate that we regard that variety as an exhibition variety, (Com.) as commercial, (Dec.) as decorative, but a variety may belong to but one or all of these classes. The figures, such as (80-85), indicate the approximate date of blooming of No. 1 bulbs when planted out when season is far enough advanced to permit normal, steady growth. Also dipping and fumigation do retard the growth a little so it is best to make several successive plantings in order to make sure of bloom at time wanted. The climate and section of the country also influence flowering dates; example, when we plant large bulbs of Mrs. F. C. Hornberger we can estimate almost exactly 105 days, but when we plant the same variety on Terra Ceia Island, Florida, we get flowers in 80 days. Smaller size bulbs of any variety will take longer to flower than the larger sizes.

AFLAME (FCH) (Com. Exhib. 80-85) The giant in the Prim-Grand class. Massive plant, dark green foliage, tall straight spikes. Under favorable conditions, Aflame will grow six feet tall and have florets six inches or more. Its giant, well-placed bloom on a tall, strong yet willowy stem must be seen to be appreciated. Its coloring is considered wonderful; a rich deep begonia rose, shading to orange flame at edge of petals. The reverse side of petals are as beautiful as the face of the flower. A National prize winner of medals and awards. Easy to propagate.

AIDA (Pfitzer) (Com. Dec. 70) One of the best deep blue shades. Large, well placed flowers with reddish lilac blotch; five open; early. A very choice variety; easy to propagate.

ALBATROSS (Pfitzer) (Ex. Dec. 80-85) Large pure white, 6-8 open; very tall; bloom are the so-called Lily type, somewhat funnel shaped, a tendency to face upward. A good variety and easy to propagate.

ALIGHT (Hornberger) Prim Grand (Exhib. Com. 80-85) A Sport of Aflame, a wonderful new variety, a shade lighter in color than Aflame, and with its large white throat blotch makes it a very distinctive and charming variety; easy to propagate. As this is a color Sport of Aflame, it has all the habits and qualities of its parent, except the difference in coloring.

ALLENWOOD (Hornberger) (Ex. Dec. 85-90) Tall spike, deep pink, 6-8 open, sometimes stems crook. A little deeper in color than "Phipps".

ARISTOCRAT (Bill) (Com. Dec. 80-85) Prim Grand. Pale saffron, flaked orange; a lovely color; 5-6 open; easy to propagate.

AVE MARIA (Pfitzer) (Ex. Com. 75-80) A good light blue, purplish blotch; 7-8 open; very good propagator; an extra good variety.

BAGDAD (Palmer) (Ex. Dec. 85-90) A smoky rose, a wonderful grower and massive plant with tall straight stems that carry massive large flowers;

5-6 open very large florets often six inches.

BEN HUR (Hornberger) (Com. Dec.) Medium height, stocky plant, heavy spike; 4-6 open large flowers, a very fine color, deep, rich purple; easy propagator.

BERTY SNOW (Mair) (Ex. Com. 75-80) A very nice lavender, 7-8 open large flowers on a good spike; good propagator. Very good but not equal to Minuet.

BETTY NUTHALL (Salbach) (Ex. Com. 100-110) Coral pink, pale yellow throat, markings shading to orange, general color effect salmon orange. Very tall, straight spikes, a massive, heavy plant, rapid propagator. Large well-placed flowers; a good keeper and shipper. One of the best commercial cut flowers on the market today. A real money maker.

BILL SOWDEN (Fallu) (Ex. Dec. 80-85) We were one of the very first to grow this variety as Fallu sent us some of his stock before he introduced the variety. Very large, massive deep blood-red, 6-7 inch blooms with 5-6 open. A sensational new variety; bulblets somewhat hard to germinate. This variety originated in the garden of E. J. Fallu, Adelaide, So. Australia.

BLUE DANUBE (Pfitzer) (Ex. Com. 80-85) Beautiful light blue; long, straight spike; 6-8 large florets open; good placement; large flowers; clear color; bulblets hard to germinate.

BLUE TRIUMPHATOR (Pfitzer) (Ex. Dec.) Tall spike, large flowers. Has been called a super Glad by some growers. A very slow propagator. We have not found this a satisfactory grower and to get real exhibition blooms you will need very good seed bed conditions.

BON ECHO (Bonisteel) (Com. Exhib.) (80-85) Lovely light pink, superior to Mrs. Sisson. A very fine variety, should be more widely grown; extra good here.

BLEEDING HEART (Brown) (Ex. Com. 82-85) White, suffused pale pink, with large red distinctive blotch; 8-10 open. Strong grower, fast propagator. Outstanding, a new glorified Pendleton. Extra choice.

BROWN WINGS (Hornberger) (Dec. 80-85) Prim Grand, moderate height; a color novelty, general color effect brown and tan; a favorite with people who like odd shades.

CANBERRA (Errey) (Ex. Com. 90-95) Tall, strong growing plant, long spikes, a good yellow, buds have greenish cast but color is good when bloom are open.

CAPT. BOYNTON (Boynton) (Com. 80-85) Light lavender; tall, large flowers; good commercial; good propagator.

CARA MIA (Miller) Prim Grand (Com. Dec.) Tall spike; shrimp pink. An extra early variety; good for early bloom.

CATHERINE COLEMAN (Joe Coleman) (Ex. Com. 90-95) A clear salmon rose; 7-8 large flowers open; good placement; tall strong plant. The large, heavy bloom sometimes bend over the spikes; extra good.

CHAS. DICKENS (Pfitzer) (Ex. Com. Dec.) Early; very tall purple-violet; strong grower; vigorous plant; good propagator.

CHAMPLAIN (Palmer) A new light blue. We have not grown this long enough to pass judgment, but we give it a high rating on the strength of the claims of the introducer. This looks to me like an improved "Heavenly Blue"; good grower, good color.

COMMANDER KOEHL (Pfitzer) (Ex. Com. 80-85) A large, clear, dark blood-red; tall spike, strong plant; good propagator; flowers very large; a real outstanding new red.

CORONADO (Briggs) Heavily suffused white with purple lace-like throat.

This variety has been highly advertised but has never given us satisfactory results in this section; slow propagator.

CORPYHEE (Pfitzer) (Ex. Dec. 75-80) Very tall, large flowered shell-pink. I think one of the most beautiful shades of pink found in Glads. Some years, when moisture, weather and soil are just right, we have produced most wonderful tall, straight spikes that would rank any place as super Glads, but at other times, stems crook badly in most parts of the east. See the photograph we print elsewhere in Catalog. The season of 1933 was very dry and Coryphee produced very many crooked spikes. We can not give it the high rating it should merit because of this fault.

CRINKLES (Kunderd) (Com. Dec. 85-90) Very popular plant; medium height; color lovely rose; very much crinkled and ruffled.

DAMASCUS (Stevens) (Com. Ex.) Deep rose-purple, overcast blue, red blotch; a very popular smoky.

DR. F. E. BENNETT (Diener) (Ex. Com. 90-95) Fiery orange-scarlet, white lines in throat; 7-8 large florets open; a very popular red.

DR. MOODY (Kinyon) (Ex. Com. 85-90) Early, light lavender; good spike; many open; strong grower; fast propagator.

DR. NELSON SHOOK (Kunderd) (Ex. Com. 80) Tyrian rose, ruffled; strong grower; tall, heavy spike; 6-8 open; extra good.

EARLY SUNRISE (Velthuys) (Ex. Com. 65) Very early; tall, strong spike; good placement; a very fine commercial, only fault is the difficulty to germinate the large, hard shelled bulblets. I believe, if it did not have this fault, it would be one of the most popular varieties.

E. I. FARRINGTON (Rowe) (Com. Ex.) Good grower; color a soft yellow self, a very good yellow.

EMILE AUBURN (Lemoine) (Ex. Dec. 85-90) Coppery bronze; large red blotch; 8-12 bloom open; tall spike; large flowers; good placement, and good propagator.

FANNY CROSBY (Carpenter) (Ex. Com.) Large, creamy white, yellow throat; good spike; large flowers; a worthwhile variety.

FIELD MARSHALL (Mair) (Ex. Dec.) Large, tall plant; large flowers, many open; color brownish red in the smoky class.

FRANK McCOY (Briggs) (Ex. Com.) Tall, large pink; good grower; many open.

GERTRUDE PFITZER (Pfitzer) (Dec. (70-75) Light blue with violet center; tall, strong grower; large flowers; a nice variety.

GIANT NYMPH (J. Coleman) (Ex. Com. 80-85) Tall, large, light salmon-rose pink; one of our best commercial pinks; very strong grower. We have seen this variety produce fine bloom when others were a failure.

GLADDIE BOY (Bill) Prim Grand (Com. Ex.) Early, tall pink; very fine.

GOLDEN DREAM (Groff) (Ex. Com. 90-95) Tall, strong grower; good propagator; long stems; fine placement; 7-10 open; a very clear, deep yellow. Do not cut buds tight. To be at its best, cut when 1 or 2 bloom have opened.

H-1177 SEEDLING (Hornberger) (Dec. 80-85) Ruffled bright salmon pink with extra large throat blotch of Golden yellow. We have had so many requests for stock that we have decided to list this variety this season. One grower described it as most beautiful Glad he had ever seen.

HAMBURG PINK (Hornberger) (Com. Ex. 65-70) Large, bright pink; 6-8 open; good grower and propagator.

- HEAVENLY BLUE** (Pfitzer) (Ex. Com. 80-85) Pale, sky blue, a few darker lines in throat; 8-10 open; good propagator; with us a fairly good grower.
- IMPRESSARIO** (Kunderd) (Dec.) Very large, fine lacinated yellow; one of the best.
- JOHN T. PIRIE** (Kunderd) (Dec. 85-90) Tall spike; mahogany brown with darker throat, bordered yellow. Very odd coloring.
- JESSIE** (Mair) (Com. Ex.) Tall, deep rose-pink; very good; good grower.
- JOERG'S WHITE** (Joerg) (Ex. Com.) Good grower and germinator but only moderate propagator; very large, well placed flowers; short spikes.
- JONKHEER VAN TETS** (Pfitzer) (Ex. Com. 90-95) Large, pure white; 7-8 open; strong grower; slow propagator.
- JUBILEE** (Kemp) (Dec. 80-85) Large, rose lavender; very light texture.
- KING ARTHUR** (Arenius) (Dec.) A very large ruffled lavender; in a good growing environment, produces wonderful blooms; fair propagator.
- KIRCHOFF'S VIOLET** (Kirchoff) Beautiful deep violet blue. One of the best violets and in great demand.
- LAIDLEY** (Errey) (Ex. Com.) Flaked and striped pink, crimson blotch in throat; 6-8 open; a very fine thing in this color.
- LA PALOMA** (Dusinberrie) Prim Grand (Com. Dec. 75-80) Large, bright orange, quite a large percent of crooked spikes here, but color and substance is very good; 4-6 open; good propagator.
- LOYALTY** (Austin) (Ex. Com. 90-95) A good, clear yellow, not as deep a color as Golden Dream but flowers are larger; one of the best yellows.
- MAID OF ORLEANS** (Pfitzer) Large lovely milky white with cream throat. Tall, straight spike. Flowers usually perfectly placed. A glorious and satisfactory white.
- MAMMOTH WHITE** (Pfitzer) (Ex. Com.) Very large, pure white; tall spike; 5-6 open, often 6 inches across; wonderful for exhibition; fair propagator.
- MARGARET FULTON** (Ogrod-nichek) Rich deep salmon of an unusually solid color. Faint apricot in throat, no other markings. Good propagator.
- MARGARET GOODRICH** (Goodrich) (Ex. Com.) Good, tall, large white, large red throat blotch; good propagator.
- MARMORA** (Errey) (Ex. Com. 80-85) Sport of E. Auburn; a very tall, strong grower; 8-12 open; very large flowers; color slate grey with pale purple blotch; an outstanding exhibition variety; in heavy demand; good propagator.
- MAROLEE** (Carpenter) (Ex. Dec.) A large rose pink, yellow center, edged flame; a very unusual and striking color combination.
- MILKMAID** (Gilrey) Pure white; tall, large flowers; many open; sometimes flecked with pink.
- MINUET** (J. Coleman) (Ex. Com. 80-85) One of the best Glads ever listed; vigorous strong plant; heavy long spike; a clear pinkish lavender; very large flowers; heavy substance; good placement; 6-8 open; a keeper and shipper. I think it the best commercial we list. See letter on another page telling what results one man had from 300 No. 5 that he purchased from us last spring. Minuet is a good grower and produces loads of bulblets but unless you use proper precautions they may not germinate well. We get as good germination as from any other variety.

MILDRED LOUISE (Wentworth)
Soft orange pink. Individual florets well open and perfectly placed. Straight spike.

MISS DES MOINES (Decorah) (Ex. Com.) A nice tall lavender; a desirable variety, but not very good grower here; slow propagator.

MISS NEW YORK (Hornberger) (Com. Dec. 85-90) Strong plant; 5-6 open; good substance; crisp form; color doree-begonia rose; a very lovely color. It takes very good soil to bring out the quality of this variety.

MRS. RAY P. CHASE (Dr. Miller) (Ex. Com.) Large, creamy white, light yellow throat; extra large flowers on good stem; fast propagator; good grower.

MRS. LEON DOUGLASS (Diener) (Ex. Com. 95-100) A salmon rose striped flame; very tall and very large flowers; as grown in the north I do not think the color very outstanding, but as we have grown it in Florida, I thought the color very fine, but so tall, so large, showy and imposing, that this has always been one of the "best sellers"; 6 or more open; good grower and propagator; good commercial; good exhibition.

MRS. CATHERINE EDWARDS (Hornberger) (Ex. Com. 70) Extra tall stems; strong plant; an early white; color a creamy white but not as deep as Mrs. A. Pfitzer; 8-10 or more open; flowers very large; flowers have been reported nearly 7 inches across; placement not always good but this is a common fault among glads. Some growers have reported poor results but we grow so extensively and use so many kinds of soil, and have had such good results that we give this a first class rating.

MRS. ANNA PFITZER (Pfitzer) (Ex. Com. 85-90) Tall, creamy white; buds greenish in color; long spike; 8-10 or more open; good grower but very slow propagator.

MRS. F. C. HORNBERGER (Hornberger) (Ex. Com. 100-105) After growing this variety many years and producing millions of bulbs, under all kinds of soil and climatic conditions, we still maintain this to be the greatest commercial white that has ever been introduced at any time or place. Has been included in the National Symposium for the last four years as one of the best 50 by national vote. Read some of the letters from customers that we print elsewhere. A tall, strong growing pure white; Europa x Peace parentage; large pure white, slightly frilled bloom; one of our most rapid propagators; under good growing conditions have had a large percentage of Nos. 1-2-3 from bulblets and many bulblets throw a spike with 20-25 buds; large bulbs sometimes have 30 buds; tall spike of large flowers, 6-8 open, sometimes more; very good keeper, a well known Buffalo florist says the best keeper they ever used. Its record of show winnings is too long to print here, our old Catalogs have contained these records. It has won many medals and championship vases including the **VAUGHAN'S BRONZE MEDAL** at New York in 1931 against all competition. Brenner, wholesaler of New York and Newark, says he will use this in preference to all other whites.

MRS. LEO MILLER (Miller) Unusual in substance, ruffling and blooming period. Not large nor many open. Beautiful clear color—salmon to a throat of gold. Not a rapid multiplier.

MRS. P. W. SISSON (J. Coleman) (Ex. Com. 90-95) Some call this a strong grower; I do not, and it just barely passes being listed in first place; will not stand very dry or adverse conditions; needs good culture. Tall, creamy light pink; 6 or more open; fairly good propagator.

MRS. VAN KONYNENBURG (Pfitzer) (Com. Dec. 75-80) A medium light blue; fair height; 5-6 open; blooms do not open very wide and open upward.

MME. MOUNET SULLEY (Le-moine) (Com. Ex. 80-85) A tall, creamy white with large red blotch in throat; much prized by connoisseurs. A lovely and charming contrast of color; somewhat slow propagator but good grower.

MOROCCO (Pfitzer) (Ex.) One of the extra dark reds, about as dark as Persia but larger, taller and better; 6-8 open.

MOTHER MACHREE (Stevens) (Ex. Dec. 95-100) A soft, smoky lavender, combined with orange and gray; a very tall, strong plant; a long spike and good placement; 6-8 open large flowers; good grower; good propagator.

MR. W. H. PHIPPS (Diener) (Ex. Com. 110) Has been called the wonder Glad; one of the best exhibition varieties in existence; has long held first place in most symposiums.

OLIVE GOODRICH (Goodrich) White with delicate pink edge. Nothing more lovely than this when it comes right. Occasionally streaks. Good propagator.

ORANGE QUEEN (Pfitzer) Prim Grand (Ex. Com. 75-80) Tall, light orange; very good; 5-7 open; flowers on long stems; good commercial.

ORANGE WONDER (Kemp) (Ex. Com. 105-110) Dark orange; tall strong, vigorous plant.

OUR SELECTION (Australia) (Ex.) Very sturdy, strong plant; color salmon red flaked deeper, cerise and creamy blotch on lower petals; 8-10 sometimes 12 large bloom open.

PAUL PFITZER (Pfitzer) (Com. Dec. 75-80) Reddish purple; moderate grower and propagator.

PAULINE KUNDERD (Kunderd) (Ex. Dec. 85-90) Light rose pink, creamy throat; 6-8 large flowers open; tall spike; slow propagator.

PEARL OF CALIFORNIA (Kingsley) (Ex. Com. 85-90) La France pink; 6-8 large bloom open; a most lovely pink; we think in the right locations this would rate first place.

PELEGRINA (Pfitzer) (Ex. Dec.) Early, large, deep dark blue; 6-8 open; a high class variety.

PFITZER'S TRIUMPH (Pfitzer) (Com. Ex. 85-90) Bright orange salmon red with dark red blotch; immense wide open flowers; stems not extra strong; for best results cut as buds begin to open.

PICARDY (Palmer) (Ex. Com. 90) We think this one of the finest glads in the world and by far the best variety Palmer has so far named. A clear, shrimp pink of immense size; 7-10 open; often 6 inches or more across; a fast propagator. Seems to do well under even adverse conditions.

PRIDE OF WANAKAH (Chuswell) (Ex. Com. 90-95) Tall plant; a lovely shade of rich rose; good propagator and grower.

PRINCE OF INDIA (Childs) (Dec.) An odd smoky, so unusual and out of the ordinary as to be in great demand.

PURPLE GLORY (Kunderd) (Ex. Com. 85-90) An old and well known exhibition variety; needs good soil to bring out its real merits. Deep velvety maroon flowers, heavily ruffled; good grower; hard to germinate the bulblets.

PURPLE QUEEN (Kunderd) (Dec. 75-80) Good violet-purple; 5-6 open; large, well placed ruffled flowers.

PYTHIA (Kunderd) (Com. Ex. 85-90) Very large, deep red; very showy; good grower and propagator.

QUEEN LOUISE (Pfitzer) (Ex. Com. 80-95) A tall, pure white; a very fine white.

QUEEN MARY (Mair) (Ex. Com. Dec. 90-95) Tall, strong plant; long spike set with numerous large buff pink flowers; slow propagator.

RAMASSES (Stevens) (Ex. Dec. 80) A very tall plant; purple flowers of immense size; 5-6 or more large florets open; has wavy and ruffled edges.

RED LORY (Errey) (Ex. 95-100) A very strong grower with tall spike; 10-12 or more open; a carmine rose with purplish red blotches.

RED PHIPPS (Briggs) (Ex. Dec.) A good light red; good placement and good grower.

ROSE MARIE PFITZER (Pfitzer) (Ex. Com.) White tinted pink, a peaches and cream effect; 8 or more open; very popular.

ROYAL LAVENDER (Schleider) (Com. 70-75) Deep lavender; good grower and propagator; needs very good soil conditions for best results.

RUFFLED GOLD (Goodrich) (Ex. Com.) Very good ruffled yellow; very fine; when given good growing conditions good grower.

SALBACH'S PINK (Salbach) (Com.) Large geranium pink; long spike; 6 or more large flowers open; strong grower.

SCHUBERT (Pfitzer) (Com. Dec.) Very good cream color with yellow blotch.

SCHWABEN GIRL (Pfitzer) (Com. Dec.) Early, large pure pink; 7-8 open; very fine when well grown.

SENIORITA (Salbach) (Ex. Dec. 90) Large, wide open orange red pencilings; medium height; good propagator; similar in color to La Paloma.

SOLVEIG (Decorah) (Ex.) A tall ruffled white, 5-7, open, a very fine new variety (Where it can be grown successfully). We have grown it three years, and so far it has been most unsatisfactory, a poor propagator, we offer it with this explanation of our

THOMAS A. EDISON (Kunderd) (Dec. 90) Heavily ruffled, deep velvety red; good grower; medium height.

TREVONIAN (Hornberger) (Ex. Com. 80-85) A very large, outstanding new lavender rose; very fine exhibition and commercial. We have had fine reports on this variety. Strong grower; good propagator.

TOBERSUN (Austin) (Ex. Com. 105-110) Large, clear yellow; tall; 6-8 open; strong grower; fair propagator.

VEILCHENBLAU (Pfitzer) (Ex. Com. 90-95) Large, dark blue; a little above medium height; a very popular dark blue; good grower; fair propagator.

WASAGA (Palmer) (Dec. 90-95) Prim Grand; a strong growing buff; flowers somewhat ruffled; 4-5 open.

WHITE ORCHID (Bill) (Com. Ex.) Early, tall ruffled Prim. Grand.

YVONNE (Krelage) (Ex. Com. 75-80) Blush white, cerise spot in throat; 6-8 very large open flowers on a strong, tall plant; strong grower; fast propagator. There may be a few crooked stems under dry conditions.

ZANE GREY (Hornberger) This is a pale light grey sport of Marmora; very interesting to grow along with Marmora; color is distinctly different.

ZILLAH (W. H. Parkman) (Com. Ex.) Tall, massive plant; extra dark green foliage, straight, tall spike; big flower head; 6-8 massive flowers open; color is a soft, warm yellow; florets are well ruffled; but I will let you hear what other growers have to say about this variety, see letters below.

ZILLAH ILLUSTRATED ON THE OUTSIDE FRONT COVER PAGE: Was grown from a bulblet, note its height as compared with the 3 ft. yardstick, also the large bulb produced. We can supply last year's Catalog, with nearly one page of letters in praise of this new early commercial yellow.

Special Collections or Sets

I WILL DUPLICATE THE SPECIAL OFFERS OF ANY OTHER RELIABLE GROWER IF I HAVE THE STOCK. Just mail me the offer and we will do the rest.

OUR HAND SELECTED MIXTURE: 100 large bulbs 1 inch and larger, *our selection* taken from the fine collection of bulbs we grow, at least 50 different kinds, price per 100 prepaid, \$3.00; 50 for \$1.50; 25 for \$1.00. Same mixture, but with 25 or more varieties, at just one-half price.

OUR 50 CENT SPECIALS

We offer you these specials, because they will prove to be real bargains. You may order any variety we list, except varieties that are listed, for more than 50 cents each for small bulbs, otherwise just put down the names of the variety you want, add 50c for each variety wanted, and we will send you a selection of various sized bulbs of each variety ordered, a generous 50c worth of each kind in several sizes; this will give you a long period of bloom of each variety, as practically all bulbs flower, even No. 6, unless growing conditions are very bad; but the various sizes all flower at different times, the larger sizes first and the smaller sizes last. Let the selection of sizes to us and you will get exceptional value. This offer is for 50 cents worth of assorted sizes, any one variety or you can order as many 50 cent assortments of any variety you wish. The 50c is merely the minimum amount, for any one variety. Order as many 50c lots as you wish, any five for \$2.25, any ten for \$4.00, any fifteen for \$5.75. No catalog discounts may be added.

SPECIAL COLLECTIONS AND SETS

Some growers offer pages of special combinations or collections; we have never done so, as it is my belief that you

could purchase our stock as listed in our catalog at lower prices than most of these offers were priced at. But I do know that many people purchase them, so we are prepared to offer some "real COLLECTIONS", but will offer them from time to time as we find our surplus permits, and not in our regular catalog. In this way we can give you *real bargains*. Send postcard, and we will mail as issued. State if wholesale or retail.

SIZE TO PURCHASE: Will depend on the use to be made of the bulbs. Under average fair conditions all sizes will flower, but the larger bulbs produce the longest spike and the most flowers open, also the largest boom, but there is a vast difference in varieties, we have many kinds today where the medium and even smaller bulbs flower almost as well as the larger bulbs. Striking a general average, it is safe to say that Nos. 1, 2, 3 are generally sold for cut flower, growing the Nos. 1-2 for greenhouse because they flower about ten days sooner than a No. 3, but the No. 3 will often produce practically as good a spike because it seldom divides, that is, it nearly always only produces one spike while the tendency of larger bulbs is to give more spikes; but seldom much better ones. Of course, in some varieties we would suggest that you confine your selection to Nos. 1-2 for very best exhibition quality, but for all general florists use the average No. 3 size will meet all requirements. I know a man, near here, who buys many No. 4 sizes to grow very fine florist cut flowers. The No. 5 and even No. 6 will give you a large supply of flowers, but the spike will be shorter, more slender, and will not have as many buds or flowers. Even some bulblets flower, that is a certain per cent flower; varieties that grow strong from bulblets like Mrs. F. C. Hornberger, Betty Nuttall, Picardy, Loyalty, Douglass, Margaret Fulton, Aida, Aflame, and scores of others. Growers advise Nos. 1-2-3 for flowers and Nos. 4-5-6 for growing bulbs and producing the most bulblet increase. By planting an assortment of

all the different sizes, at one time in one row, you will get flowers over a very long period of time, as the smaller bulbs require more time to develop spikes and so string out the flowering season. Of course, you can plant any given size bulbs at different dates, and so get flowers of the same variety through a long season, but where you do not wish to bother with many different plantings, but wish to plant all at one time, we suggest you purchase some of our \$.50 assortments offered in this catalog.

TERMS OF SALE FOR PREPAID LIST

PURITY AND HEALTH: We have done all that any reliable grower can do, to keep stock true to label, and in a clean, sound healthy condition, we could give you ballyhoo in place of facts, but we will not do so; you must be the judge of our products and service, and we intend to do all we can to merit your confidence.

Our state nursery inspector has declared our Glads 100 percent free of thrips, but we will not neglect any precautions, even though we feel our bulbs are, all that we represent them to be. If wanted, we will add naphthalene to the bulbs or give special fumigation.

TERMS: All cash before shipment, otherwise C.O.D. for balance due; 20% with order will reserve for later shipment.

DISCOUNTS FOR CASH: Discounts apply only to our prepaid list, not to our F.O.B. list. On orders of \$3.00 to \$25.00 we allow 5% from our prepaid prices. On orders of \$25.00 to \$50.00 we allow 10% from our prepaid prices, and on orders of \$50.00 or more we will be pleased to quote special discounts, depending on value of the order, and supply available. *Note*—These discounts do not apply to our Wholesale Trade Quotations, offered per 1000 F.O.B., Hamburg, N. Y.

FREE BULB EXTRAS: As a general rule we allow about 10% extra

count of all prepaid price items, of 1 up to 100 bulbs. Where we can not allow so much on one item, we try to make up on the other items, so that the extras will average about ten percent. At the thousand rates, we allow less; the quantity will depend on the net price of the item sold. This year we have allowed a cash discount, see above, but in addition, we will allow you to select bulbs of three of our finest varieties, Trevonian, all sizes; Allenwood, all sizes; Mrs. Ray Chase, Nos. 3-4-5 sizes. On orders over \$5.00 you may select, up to 10% of the value of your order, in stock of the varieties named, for example, if your order is \$10.00, you select \$1.00 worth of these varieties, entirely free, if order is \$21.00 you select \$2.10 value free, and all this in addition to our extra count and our *cash discounts*. We will try to send you the sizes you request, but if sold out we will be compelled to give you the next size, (only with prepaid bulb items).

HOW SHIPPED: All bulbs and seeds offered in our regular Prepaid list, are sent by prepaid parcellpost or express, we will use our best judgment, in making shipment. We prefer to ship by express in cold weather, as the parcellpost will not insure against freezing, but the express company will assume liability for frozen bulbs. If your order calls for items from both the prepaid list as well as our f.o.b. list, then we will send the entire order, express charges collect, and add enough extras, to the prepaid items, to more than adjust the difference.

MERCHANDISE: Other than bulbs and seeds, some items are prepaid and some are not, but all such quotations are "net" and cash discounts do not apply.

COMPARING PRICES: We have tried to make our prices correspond with the prices of other reliable growers, and I think you will find us lower on many items than most others. However, it is a very difficult matter to get all price quotations to read exactly alike, as growers, often make high or low prices on particular items, because of quantity avail-

able, but if you think we are much too high on any item, call our attention to same when ordering, and we will try and

adjust any prices that may through error be too much out of line with other reliable growers average prices.

Our Free Bulb Page

Following are the names of the varieties, as well as the sizes, that we offer as Free Awards, prizes, and all free bulb offers. We can not change any of these varieties for others not listed here; please do not ask us to make any change in our offers. All prices of these are listed in price list. ALIGHT, sizes No. 3 and No. 4; ZANE GREY (Marmora Sport), No. 3 and No. 4; ALLEN-WOOD, all sizes; TREVONIAN, all sizes; ZILLAH, No. 2 and No. 3; MRS. LEO MILLER, Nos. 1, 2, 3, 4; MRS. RAY CHASE, No. 3, 4, 5; DAMASCUS Nos. 3, 4, 5, 6; H-1177 SEEDLING, all sizes; Sport of Capt. Boynton; Sport of Richard Diener; Sport of Anna Eberius; Sports all sizes available. All sports are same prices as H-1177 as listed. Many of these are highly rated varieties; see descriptive list. We will exchange the above varieties for bulblets of Picardy and other new varieties.

FREE BULBS FOR PERSONAL FAVOR

The new banking rules levy a high charge for handling our checks. We will accept checks and Express money orders, but we prefer U. S. POSTAL MONEY ORDERS. They are accepted the same as cash and are absolutely safe. In the above paragraph, we indicate several of our finest Glads, under "Our Free Bulb Page." Tell us what variety and sizes

you wish and we will allow you from 50c up. Our selection, all depending on value of the order; we allow more on larger sized orders. This stock is given free, when you remit by U. S. Postal Money Order, we will mark "Free for favor," with proper label and size indicated.

A FREE BULB OFFER

THE NEW ENGLAND GLADIOLUS SOCIETY, abbreviated N.E.G.S., offers the "GLADIOLUS", a DeLuxe Edition Book; bound in boards and suede cloth, gold stamped, about 272 pages; 40 pages of illustrations, several in colors; articles by noted writers and authorities. This book will be sold at book stores for \$1.75 per copy; a copy free to each member. The membership is only \$1.00 per year. OUR ADDITIONAL OFFER for all NEW MEMBERS, not RENEWALS: We will give \$1.00 worth of bulbs, OUR selection, entirely free. These bulbs will only be from the varieties we name on our free bulb page; do not ask us to change the offer as we can not do that; the bulbs we offer on our special page are the only varieties that we have available for this purpose, and they represent some very select kinds. Send us your membership, or one for your friends; a DeLuxe gift for a friend. You may indicate which of these varieties you prefer, and we will try to send same.

Prepaid Price List

See discounts offered under "Terms of Sale." This list cancels all previous lists. No order for less than \$1.00; no single item under 10c each. If sold out may we substitute; — size? — variety? We expect shortage of varieties before spring.

We accept checks and Express Money orders, but we prefer U. S. POSTAL MONEY ORDERS: in payment of all orders, and you will find a "FREE OFFER", see our Free Bulb Page, we allow from 50c up, selected from the varieties named there, if you will remit with U. S. Postal Money Order. Reasons printed on same page.

NOTE: This is our prepaid list, it has no connection with our "Wholesale Trade Quotations" on another page, which is not prepaid. If you select items from both lists, and wish them sent together, we will send all items, Express charges collect, and add enough to the prepaid items to more than cover the difference.

3 Bulbs at the 10 rate; 25 bulbs at the 100 rate; 250 bulbs at the 1000 rate. To find the 1000 price, multiply the 100 price by eight (8). Bulblets, pints and half pints, at quart rates. We also put up bulblets, in packets, priced at 10c, 25c, 50c, and \$1.00 per packet. You will find extra good value in every packet. This will take care of small quantities of bulblets.

VARIETY	PER	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BULBLETS	
AFLAME.....	100	\$3.25	\$2.00	\$1.50	\$1.20	\$.80	\$.60	Qt.	\$3.50
	10	.50	.30	.20	.15	.12	.10	1000	1.00
AIDA.....	100	4.00	3.00	2.00	1.20	.80	.60	Qt.	3.50
	10	.50	.40	.30	.25	.15	.10	1000	1.00
ALBATROSS.....	100	6.00	.400	3.00	2.00	1.60	1.20	Qt.	9.00
	10	.70	.50	.40	.30	.20	.15	1000	3.00
ALIGHT.....	100	200.00	175.00	150.00	125.00	100.00	75.00	100	20.00
	10	25.00	20.00	16.00	14.00	12.00	10.00	10	2.50
	1	3.00	2.50	2.00	1.50	1.25	1.10	1	.30
ALLENWOOD.....	100	20.00	15.00	10.00	8.00	6.00	5.00	Qt.	10.00
	10	2.50	2.00	1.50	1.00	.75	.60	1000	2.00
	1	.30	.25	.20	.15	.12	.10	100	.25
ARISTOCRAT.....	100	3.00	2.50	1.75	1.00	.80	.70	Qt.	3.00
	10	.40	.30	.25	.20	.15	.10	1000	1.00
AVE MARIA.....	100	4.00	3.00	2.00	1.50	1.00	.80	Qt.	3.50
	10	.50	.40	.30	.20	.15	.10	1000	1.00
BAGDAD.....	100	12.00	8.00	5.00	4.00	3.00	2.40	Qt.	9.00
	10	1.50	1.00	.80	.60	.40	.30	100	.40
	1	.20	.12	.10	2-.10	2-.15	3-.10	20	.10
BEN HUR.....	100	3.50	2.50	1.50	1.00	.75	.50	Qt.	3.00
	10	.40	.30	.20	.15	.12	.10	1000	1.00
BERTY SNOW.....	100	3.00	2.20	1.75	1.20	.80	.60	Qt.	3.00
	10	.50	.35	.30	.20	.15	.10	1000	1.00
BETTY NUTHALL.....	100	4.00	3.00	2.00	1.20	.80	.50	Qt.	2.50
	10	.50	.40	.30	.20	.15	.10	1000	1.00
BILL SOWDEN.....	100	12.00	8.00	6.00	5.00	4.00	2.00	Qt.	20.00
	10	1.50	1.00	.75	.60	.50	.35	1000	7.00
	1	.20	.15	.10	.....	.....	.....	100	.75
BLEEDING HEART.....	100	10.00	8.00	6.00	5.00	4.00	3.00	Qt.	12.00
	10	1.25	1.00	.75	.60	.50	.40	1000	4.00
	1	.15	.10	.....	.....	.....	.....	100	.50
BLUE DANUBE.....	100	.....	8.00	6.00	5.00	4.00	3.00	Qt.	15.00
	10	1.20	1.00	.80	.60	.50	.40	1000	3.00

VARIETY	PER	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BULBLETS	
BLUE TRIUMPHATOR.....	100	12.00	9.00	7.00	6.00	.....	.....	.....	.....
	10	1.50	1.20	1.00	.75	.....	.....	1000	6.00
BON ECHO.....	100	3.00	2.00	1.50	1.00	.75	.50	Qt.	4.00
	10	.40	.30	.20	.15	.12	.10	1000	1.00
BROWN WINGS.....	100	6.00	5.00	4.00	3.00	2.00	1.00	Qt.	4.00
	10	.70	.60	.50	.40	.30	.15	1000	1.00
CANBERRA.....	100	5.00	4.00	3.00	2.40	1.00	.60	Q t.	6.00
	10	.60	.50	.40	.30	.15	.10	1000	1.50
CAPT. BOYNTON.....	100	2.50	2.00	1.25	1.00	.75	.50	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	.75
CARA MIA.....	100	2.50	2.00	1.25	1.00	.75	.50	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	.75
CATHERINE COLEMAN.....	100	3.50	2.75	1.25	1.00	.75	.50	Qt.	3.50
	10	.50	.40	.30	.20	.15	.12	1000	1.00
CHAS. DICKENS.....	100	3.80	2.80	1.80	1.20	1.00	.....	Qt.	3.50
	10	.50	.40	.30	.20	.15	.....	1000	1.00
CHAMPLAIN.....	10	16.00	14.00	12.00	10.00	8.00	6.40	10	3.00
	1	2.00	1.75	1.50	1.25	1.00	.80	1	.40
COMMANDER KOEHL.....	100	6.00	4.80	3.00	2.50	1.25	1.00	Qt.	7.00
	10	.70	.60	.40	.30	.20	.15	1000	2.30
CORONADO.....	100	5.00	4.00	3.00	2.00	1.60	.....	Qt.	8.00
	10	.70	.50	.40	.30	.20	.....	1000	1.50
CORYPHEE.....	100	5.00	4.00	3.00	1.50	1.00	.75	Qt.	3.50
	10	.70	.60	.40	.20	.15	.10	1000	1.20
CRINKLES.....	100	.....	2.40	2.00	1.50	1.00	.60	Qt.	3.00
	10	.....	.40	.30	.20	.15	.10	1000	1.00
DAMASCUS.....	100	7.00	5.00	4.00	3.50	2.00	1.00	Qt.	5.00
	10	.80	.60	.50	.40	.30	.15	1000	2.00
DR. F. E. BENNETT.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.00
	10	.50	.30	.20	.15	.12	.10	1000	.70
DR. MOODY.....	100	4.00	3.00	2.00	1.00	.80	.60	Qt.	2.55
	10	.50	.40	.30	.20	.15	.12	1000	.80
DR. NELSON SHOOK.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.50
	10	.50	.35	.20	.15	.12	.10	1000	.80
EARLY SUNRISE.....	100	4.00	3.00	.....	.....	.....	.....	.....	.....
	10	.50	.40	.....	.....	.....	.....	.....	.....
E. I. FARRINGTON.....	100	4.00	3.00	2.00	1.20	.75	.60	Qt.	3.00
	10	.50	.40	.30	.20	.15	.12	1000	1.00
EMILE AUBURN.....	100	3.00	2.40	1.60	1.20	.80	.60	Qt.	3.00
	10	.50	.35	.20	.15	.12	.10	1000	1.00
FANNY CROSBY.....	100	20.00	15.00	10.00	8.00	6.00	4.00	1000	5.00
	10	2.50	2.00	1.25	1.00	.75	.60	100	.60
	1	.30	.25	.20	.15	.12	.10	.....	.....
FIELD MARSHALL.....	10	2.00	1.50	1.00	.....	.....	.....	.....	.....
	1	.30	.20	.....	.....	.....	.....	.....	.....
FRANK McCOY.....	100	4.00	3.00	2.40	2.00	1.50	1.00	Qt.	3.60
	10	.50	.40	.30	.25	.20	.15	1000	1.00
GERTRUDE PFITZER.....	100	4.00	3.00	2.40	2.00	1.50	1.00	Qt.	3.60
	10	.50	.40	.30	.25	.20	.15	1000	1.00
GIANT NYMPH.....	100	2.50	2.00	1.20	1.00	.80	.60	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	.80
GLADDIE BOY.....	100	4.00	3.00	2.00	1.00	.80	.60	Qt.	3.00
	10	.50	.40	.30	.20	.15	.12	1000	1.00

VARIETY	PER	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BULBLETs	
GOLDEN DREAM	100	2.50	2.00	1.40	1.00	.60	.40	Qt.	1.80
	10	.40	.30	.15	.12	.10	.....	1000	.80
H. 1177 SEEDLING	10	8.00	6.00	5.00	4.00	3.00	2.00	1000	8.00
	1	1.00	.80	.60	.50	.40	.25	100	1.00
HAMBURG PINK	100	4.00	3.00	2.50	2.00	1.50	1.00	Qt.	3.00
	10	.50	.40	.30	.25	.20	.15	1000	1.00
HEAVENLY BLUE	100	4.00	3.00	2.50	1.50	.75	.60	Qt.	3.00
	10	.50	.40	.30	.15	.12	.10	1000	1.00
IMPRESSARIO	10	4.00	3.00	2.00	1.50	1.00	.75	100	4.00
	1	.50	.40	.30	.20	.15	.12	10	5.00
JOHN T. PIRIE	100	3.00	2.00	1.50	1.00	.75	.60	Qt.	2.00
	10	.50	.30	.20	.15	.12	.10	1000	.80
JESSIE	100	3.50	2.50	1.50	1.00	.75	.60	Qt.	3.00
	10	.50	.30	.20	.15	.12	.10	1000	1.00
JOERG'S WHITE	100	4.00	3.00	2.00	1.80	.....	.....	.....	.....
	10	.60	.40	.30	.20	.....	.....	.....	.....
JONKHEER VAN TETS	100	12.00	10.00	8.00	6.00	5.00	.....	1000	10.00
	10	1.50	1.25	1.00	.75	.60	.....	100	1.25
	1	.20	.15	.10	.....	.....	.....	10	.15
JUBILEE	100	8.00	6.00	5.00	4.00	3.00	.....	.....	.....
	10	1.00	.75	.60	.50	.40	.....	.....	.....
KING ARTHUR	100	16.00	12.00	10.00	8.00	6.00	4.00	Qt.	40.00
	10	2.40	2.00	1.60	1.20	1.00	.80	100	2.00
	1	.30	.25	.20	.15	.12	.10	10	.25
KIRCHOFF'S VIOLET	100	5.00	4.00	3.00	.....	.....	.....	.....	.....
	10	.60	.50	.40	.....	.....	.....	.....	.....
LAIDLEY	100	10.00	9.00	7.00	5.00	4.00	3.00	1000	5.00
	10	1.25	1.00	.75	.60	.50	.40	100	.60
	1	.15	.12	.10	.....	.....	.....	.....	.....
LA PALOMA	100	4.00	3.00	2.40	1.80	1.20	.80	Qt.	2.50
	10	.50	.40	.30	.20	.15	.12	1000	.80
LOYALTY	100	3.60	2.60	2.00	1.60	1.20	.80	Qt.	3.00
	10	.50	.30	.25	.20	.15	.10	1000	1.00
MAID OF ORLEANS	100	12.00	9.00	7.20	6.40	4.00	.....	.....	.....
	10	1.50	1.20	1.00	.80	.60	.....	100	1.00
	1	.18	.15	.12	.10	2-.15	.....	10	.15
MAMMOTH WHITE	100	6.00	4.00	2.40	2.00	1.60	1.00	Qt.	10.00
	10	.75	.50	.30	.25	.20	.15	1000	3.00
MARGARET FULTON	10	1.60	1.20	.80	.60	.....	.....	100	.40
	1	.20	.15	.12	.10	.....	.....	.....	.....
MARGARET GOODRICH	100	4.00	3.00	2.00	1.20	.75	.60	Qt.	3.00
	10	.50	.40	.30	.15	.12	.10	1000	1.00
MARMORA	100	3.00	2.00	1.20	1.00	.80	.60	Qt.	2.00
	10	.50	.30	.20	.15	.12	.10	1000	.75
MAROLEE	10	1.00	.80	.70	.60	.50	.40	100	.40
	1	.15	.12	.10	.....	.....	.....	.....	.....
MILDRED LOUISE	100	.....	20.00	16.00	12.00	10.00	9.00	100	4.00
	10	.....	2.25	2.00	1.50	1.20	1.00	10	.50
	1	.....	.30	.25	.20	.15	.12	.....	.....
MILKMAID	100	10.00	7.00	5.00	4.00	3.00	2.00	1000	5.00
	10	1.25	1.00	.60	.50	.40	.30	100	.60
	1	.15	.12	.10	.....	.....	.....	.....	.....
MINUET	100	4.00	3.00	2.00	1.50	1.10	.80	Qt.	3.50
	10	.50	.40	.30	.20	.15	.10	1000	1.50

VARIETY	PER	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BULBLETS	
MISS DES MOINES.....	100	6.40	5.00	4.00	3.00	2.00	1.00	Qt.	10.00
	10	.75	.60	.50	.40	.30	.15	1000	2.00
MISS NEW YORK.....	100	3.00	2.00	1.25	1.00	.75	.60	Qt.	2.00
	10	.50	.30	.20	.15	.12	.10	1000	.80
MME. MOUNET SULLEY.....	100	4.00	3.00	2.00	1.00	.80	.60	Qt.	4.00
	10	.50	.40	.30	.15	.12	.10	1000	1.00
MOROCCO.....	100	4.00	3.00	2.00	1.00	.80	.60	Qt.	2.50
	10	.50	.40	.30	.15	.12	.10	1000	.89
MOTHER MACHREE.....	100	6.00	4.00	2.50	1.25	1.00	.80	Qt.	3.50
	10	.75	.50	.35	.25	.15	.10	1000	1.25
MRS. ANNA PFITZER.....	10	1.75	1.50	1.00	.....	.....	.....	.....	.....
	1	.25	.20	.15	.....	.....	.....	.....	.....
MRS. CATH. EDWARDS.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	3.00
	10	.40	.30	.20	.15	.12	.10	1000	1.00
MRS. F. C. HORNBERGER.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	3.00
	10	.50	.35	.25	.15	.12	.10	1000	1.00
MRS. LEO MILLER.....	10	30.00	20.00	10.00	8.00	.....	.....	.....	.....
	1	3.00	2.50	1.50	1.00	.....	.....	.....	.....
MRS. LEON DOUGLASS.....	100	2.50	2.00	1.50	1.00	.80	.60	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	.75
MRS. P. W. SISSON.....	100	3.00	2.00	1.50	1.00	.75	.60	Qt.	1.50
	10	.50	.30	.20	.15	.12	.10	1000	.75
MRS. RAY P. CHASE.....	100	15.00	12.00	10.00	8.00	7.00	5.00	Qt.	30.00
	10	1.75	1.50	1.20	1.00	.80	.60	1000	7.00
	1	.25	.20	.15	.12	.10	.....	100	.75
MRS. VAN KONYNENBURG.....	100	3.50	2.00	1.50	1.00	.80	.60	Qt.	2.40
	10	.50	.30	.20	.15	.12	.10	1000	.80
MR. W. H. PHIPPS.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.30
	10	.40	.30	.20	.15	.12	.10	.....	.75
OLIVE GOODRICH.....	100	3.00	2.00	1.50	1.00	.70	.60	Qt.	1.50
	10	.40	.30	.20	.15	.12	.10	1000	.75
ORANGE QUEEN.....	100	3.00	2.00	1.50	1.00	.70	.60	Qt.	1.50
	10	.40	.30	.20	.15	.12	.10	1000	.75
ORANGE WONDER.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.40
	10	.40	.30	.20	.15	.12	.10	1000	.80
OUR SELECTION.....	100	3.00	2.00	1.50	1.20	.80	.70	Qt.	3.00
	10	.40	.30	.20	.15	.12	.10	1000	1.00
PAUL PFITZER.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.50
	10	.40	.30	.20	.15	.12	.10	1000	1.00
PAULINE KUNDERD.....	100	5.00	4.00	3.00	2.00	1.50	1.00	.....	.....
	10	.60	.50	.40	.30	.20	.15	1000	2.00
PEARL OF CALIFORNIA.....	100	3.00	2.00	1.50	.....	.....	.....	Qt.	2.60
PELEGRINA.....	100	16.00	12.00	10.00	8.00	6.00	5.00	Qt.	20.00
	10	2.00	1.60	1.20	1.00	.80	.60	100	1.00
	1	.25	.20	.15	.12	.10	2-.15	10	.15
PFITZER'S TRIUMPH.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.40
	10	.40	.30	.20	.15	.12	.10	1000	1.00
PICARDY.....	100	8.00	6.00	4.00	3.00	2.00	1.40	Qt.	7.00
	10	1.00	.70	.50	.40	.30	.20	1000	2.00
PRIDE OF WANAKAH.....	100	3.00	2.25	1.75	1.00	.80	.60	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	.75
PRINCE OF INDIA.....	100	5.00	4.00	2.00	1.00	.80	.60	Qt.	3.00
	10	.60	.50	.30	.20	.15	.12	1000	1.00
PURPLE GLORY.....	100	3.50	2.00	1.50	1.00	.....	.....	.....	.....
	10	.50	.30	.20	.15	.....	.....	.....	.....

VARIETY	PER	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BULBETS	
PURPLE QUEEN.....	100	4.00	3.00	2.00	1.00	.80	.60	Qt.	4.00
	10	.50	.40	.30	.15	.12	.10	1000	1.50
PYTHIA.....	100	4.00	3.00	2.00	1.00	.....	.....	.....	.....
	10	.50	.40	.30	.15	.....	.....	1000	1.00
QUEEN LOUISE.....	100	20.00	15.00	10.00	8.00	6.00	5.00	Qt.	30.00
	10	2.50	2.00	1.50	1.00	.80	.60	1000	8.00
	1	.30	.25	.20	.15	.12	.10	100	.90
QUEEN MARY.....	10	6.00	5.00	4.00	3.00	2.00	.....	.....	.....
	1	.75	.60	.50	.40	.30	.....	.....	.....
RAMASSES.....	10	.....	1.60	1.20	.80	.60	.50	1000	.80
	1	.....	.20	.15	.10	2-.15	3-.15	25	.25
RED LORY.....	100	12.00	10.00	7.00	5.00	4.00	3.00	1000	8.00
	10	1.50	1.25	1.00	.70	.50	.40	100	.90
	1	.20	.15	.12	.10	.....	.....	.....	.....
RED PHIPPS.....	100	9.60	8.00	6.40	4.80	3.20	2.40	100	.90
	10	1.50	1.00	.75	.60	.40	.30	1000	8.00
ROSE MARIE PFITZER.....	10	8.00	7.00	5.00	.....	.....	.....	.....	.....
	1	1.00	.80	.60	.....	.....	.....	.....	.....
ROYAL LAVENDER.....	100	4.00	3.00	2.40	1.80	1.00	.75	.....	.....
	10	.50	.40	.30	.20	.15	.10	1000	1.00
RUFFLED GOLD.....	100	5.00	4.00	3.00	2.00	1.60	1.00	.....	.....
	10	.60	.50	.40	.30	.20	.15	1000	2.00
SALBACH'S PINK.....	100	8.00	6.00	4.00	3.00	2.40	1.80	Qt.	4.00
	10	1.00	.70	.50	.40	.30	.20	1000	1.60
	1	.15	.12	.10	.....	.....	.....	.....	.....
SCHUBERT.....	100	20.00	18.00	15.00	12.00	10.00	8.00	.....	.....
	10	2.40	2.00	1.70	1.40	1.20	.90	100	.50
	1	.30	.25	.20	.18	.15	.10	15	.10
SCHWABEN GIRL.....	100	10.00	8.00	6.00	5.00	3.00	2.00	Qt.	12.00
	10	1.25	1.00	.75	.60	.40	.30	1000	4.00
	1	.20	.15	.10	.....	.....	.....	100	.50
SEÑORITA (S).....	100	3.50	2.00	1.50	1.00	.80	.60	Qt.	1.50
	10	.50	.30	.20	.15	.12	.10	1000	.75
SOLVEIG.....	10	50.00	40.00	35.00	30.00	25.00	16.00	10	2.00
	1	7.00	6.00	5.00	4.00	3.00	2.00	1	.25
THOMAS A. EDISON.....	100	8.00	5.50	4.00	3.00	2.00	.....	.....	.....
	10	1.00	.75	.60	.40	.30	.....	.....	.....
TREVONIAN.....	100	100.00	75.00	50.00	40.00	30.00	25.00	1000	10.00
	10	12.00	9.00	6.00	5.00	4.00	3.00	100	1.25
	1	1.50	1.00	.75	.60	.30	.20	10	.20
TOBERSUN.....	100	5.00	4.00	3.20	2.40	1.00	.75	Qt.	5.00
	10	.60	.50	.40	.30	.15	.12	1000	2.00
VEILCHENBLAU.....	100	3.20	2.80	2.00	1.40	1.00	.60	Qt.	2.50
	10	.50	.40	.30	.20	.15	.10	1000	1.00
WASAGA.....	100	20.00	16.00	12.00	10.00	7.00	5.00	Qt.	40.00
	10	3.20	2.40	2.00	1.60	1.20	.80	100	2.00
	1	.40	.30	.25	.20	.15	.10	10	.25
WHITE ORCHID.....	100	4.00	3.00	2.00	1.00	.75	.60	Qt.	6.00
	10	.50	.40	.30	.15	.12	.10	1000	2.00
YVONNE.....	100	3.00	2.00	1.50	1.00	.80	.60	Qt.	2.00
	10	.40	.30	.20	.15	.12	.10	1000	1.00
ZANE GREY.....	10	20.00	15.00	10.00	8.00	6.00	5.00	100	2.00
	1	2.50	2.00	1.25	1.00	.75	.60	10	.25
ZILLAH.....	100	50.00	35.00	25.00	20.00	15.00	10.00	100	5.00
	10	6.00	4.00	3.00	2.50	2.00	1.50	10	.60
	1	.70	.60	.40	.30	.25	.20	.....	.....
GOOD MIXED.....	100	2.00	1.50	1.00	.75	.50	.40	Qt.	.50
	10	.30	.20	.15	.10	.....	.....	.....	.....
EXHIBITION MIXED.....	100	3.00	2.50	2.00	1.50	1.00	.75	Qt.	2.00
A very good assortment of many colors.	10	.50	.40	.30	.20	.15	.10	1000	.75

Wholesale Trade Quotations

NOT PREPAID: QUOTED F.O.B. HAMBURG, N. Y. NO CATALOG DISCOUNTS APPLY EXCEPT AS BELOW. This list cancels all previous lists. All stock offered subject to prior sale. CASH DISCOUNTS on items from this list (only) 5% for cash with orders of \$10.00 up; 10% for cash with \$25.00 up; over \$50.00 we will be glad to quote a discount, all depending on size of order and the stock available. This Wholesale Trade Quotation is entirely separate and distinct from the rest of the Catalog, we have included it here, as it is more convenient for all concerned. We try to allow enough extras of some kind, to help pay the express charges. Also if you will make remittance by U. S. Postal Money Order we will give you additional stock free. See our "Free Bulb Page" under offer of "Free Bulbs For Personal Favors." SPECIAL QUOTATIONS ON LARGE ORDERS: In particular Nos. 3-4-5-6- sizes. If sold out may we substitute — size? — variety? No order from this list for less than \$1.00; no single item for less than 25c.

If your order calls for items from both this and our prepaid list, we will then send all items in one shipment, express charges collect, and add enough extras to more than cover the differences.

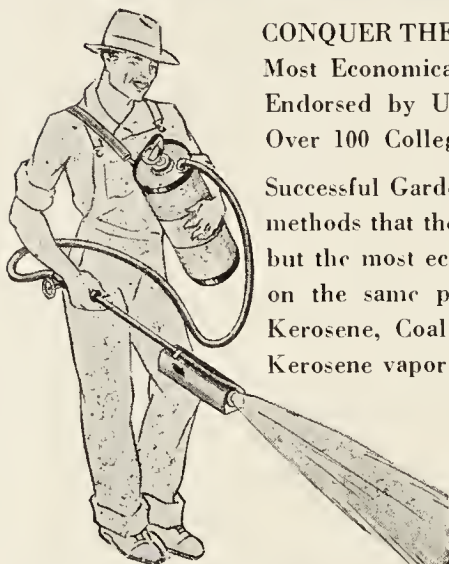
BULBS AND SEEDS: Take second class express rates which will approximate about \$3.00 per 1000 miles of transportation for each 100 pounds of second class express. Bulbs weigh approximately (net) without boxes, packing material, etc.; No. 1 sizes all the way from 70 to 100 pounds per 1000; oversize up to 150 pounds per 1000; No. 2, sizes approximately 55 pounds; No. 3, 25-30 pounds; No. 4, 12-14 pounds; No. 5, 5-6 pounds; No. 6, 1½-2 pounds net per 1000. Bulblets 1½-2 pounds per quart. From this brief estimate you can judge approximately costs of delivery, allow some weight for the box and packing material. As a rule, the box required for 1000 bulbs will weigh almost as much as a box used for 2000 bulbs.

250 Bulbs at the 1000 rate; Add 10% to quantity of 100 up to 250; and 20% for less than 100 bulbs of a size or kind.

PRICE PER 1000	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BLTS. QTS.
AFLAME.....	\$16.00	\$12.50	\$ 8.50	\$ 7.50	\$ 5.20	\$ 4.00	\$ 3.00
AIDA.....	16.00	12.80	9.60	8.00	5.00	4.00	3.00
ARISTOCRAT.....	15.00	12.00	7.00	5.75	4.75	4.00	2.50
AVE MARIA.....	18.00	12.80	9.60	8.00	6.40	5.60	2.40
BEN HUR.....	.....	12.00	9.00	7.00	5.00	3.00	2.20
BERTY SNOW.....	16.00	12.80	9.60	8.00	5.40	4.00	2.40
BETTY NUTHALL.....	16.00	12.80	9.60	6.40	5.00	3.20	1.80
BILL SOWDEN.....	72.00	56.00	40.00	30.00	20.00	14.00	18.00
BLEEDING HEART.....	72.00	56.00	40.00	30.00	20.00	14.00	10.00
BROWN WINGS.....	.....	30.00	25.00	20.00	15.00	10.00	3.00
CANBERRA.....	30.00	20.00	15.00	10.00	6.00	4.00	5.00
CAPT. BOYNTON.....	16.00	12.80	8.00	6.00	4.00	3.00	1.50
CARA MIA.....	15.00	12.00	8.00	6.00	4.00	3.00	1.50
CATH. COLEMAN.....	20.00	15.00	10.00	7.00	5.00	4.00	2.50
COMMANDER KOEHL.....	32.00	25.60	19.20	16.00	.....	.....	7.00
CORYPHEE.....	24.00	16.00	12.80	9.60	6.00	4.00	3.00
CRINKLES.....	.....	16.00	14.00	10.00	5.00	3.50	2.00

PRICE PER 1000	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	BLTS. QTS.
DAMASCUS.....	30.00	25.00	20.00	15.00	10.00	5.00	4.00
DR. F. E. BENNETT.....	16.00	12.80	9.60	7.00	5.00	3.50	2.00
DR. N. SHOOK.....	16.00	12.80	9.60	7.00	5.00	3.50	2.00
E. I. FARRINGTON.....	20.00	16.00	12.00	8.00	5.00	4.00	2.50
EMILE AUBURN.....	20.00	16.00	11.00	8.00	5.00	4.00	2.00
GIANT NYMPH.....	16.00	12.00	9.60	7.00	5.00	3.50	1.50
GLADDIE BOY.....	20.00	15.00	12.00	7.00	5.00	4.00	2.50
GOLDEN DREAM.....	16.00	12.80	8.00	7.00	4.80	3.20	1.80
HEAVENLY BLUE.....	.....	20.00	15.00	10.00	5.00	4.00	2.50
LA PALOMA.....	25.00	20.00	16.00	12.00	8.00	4.00	2.00
LOYALTY.....	20.00	15.00	12.00	9.00	9.60	6.40	3.00
MAMMOTH WHITE.....	32.00	25.60	19.20	16.00	.....	8.00	10.00
MARGARET GOODRICH.....	25.00	20.00	14.00	8.00	5.00	4.00	2.50
MARMORA.....	19.20	14.00	8.00	7.00	5.00	3.50	1.50
MINUET.....	.....	15.50	11.00	9.00	7.00	6.00	.....
MISS DES MOINES.....	40.00	30.00	25.00	20.60	12.00	6.00	8.00
MOROCCO.....	16.00	12.80	9.60	7.00	5.00	4.00	2.00
MOTHER MACHREE.....	32.00	24.00	14.00	7.00	6.00	5.00	3.00
MRS. C. EDWARDS.....	20.00	15.00	10.00	7.00	5.50	4.00	2.50
MRS. LEON DOUGLASS.....	16.00	12.80	9.60	6.40	4.80	3.20	1.50
MRS. R. P. CHASE.....	100.00	80.00	70.00	55.00	45.00	35.00	25.00
MRS. VAN KONYNENBURG.....	16.00	12.80	9.60	7.00	5.60	4.20	2.00
MR. W. H. PHIPPS.....	16.00	12.80	9.60	7.00	5.60	4.20	1.80
ORANGE QUEEN.....	16.00	12.80	9.60	7.00	4.80	4.00	1.50
ORANGE WONDER.....	16.00	12.80	9.60	7.00	5.60	4.20	2.00
OUR SELECTION.....	16.00	12.80	9.60	8.00	5.75	4.60	2.50
PFITZER'S TRIUMPH.....	16.00	12.80	9.60	7.00	5.40	4.00	2.00
PICARDY.....	48.00	32.00	24.00	16.00	11.20	8.00	6.50
ROYAL LAVENDER.....	19.20	16.00	12.80	10.00	7.00	5.00	.....
SCHWABEN GIRL.....	64.00	48.00	40.00	32.00	20.00	15.00	10.00
VEILCHENBLAU.....	.....	12.80	9.60	8.00	5.50	4.00	2.00
YVONNE.....	.....	12.80	9.60	8.00	6.00	4.80	1.50
GOOD MIXTURE.....	.....	10.00	8.00	6.00	4.00	3.00	1.00

"Aeroil" No. 99 Weed Burner



CONQUER THE WEED MENACE by this New Modern Way. Surest, Safest, Most Economical Method of Weed Eradication Yet Devised. Used and Endorsed by United States Forest Service, National Park Service and Over 100 Colleges and Experiment Stations.

Successful Gardeners and Horticulturists have found after trying all other methods that the AEROIL WEED BURNER is not only the most efficient, but the most economical as well. The AEROIL WEED BURNER works on the same principle as a plumber's blow torch. The fuel used is Kerosene, Coal Oil, Range Oil, Stove Oil or Light Furnace Oil. The Kerosene vapor and air are combined in the burner in correct proportion for perfect combustion, (94% air, 6% kerosene), producing a powerful, reddish-blue flame, 3 inches in diameter, 30 inches long, — of intense heat, 2000° F. The size of the flame is easily controlled by a regulating valve.

SIMPLE, SAFE, VERY ECONOMICAL. Anyone can operate an AEROIL WEED BURNER. It is **ABSOLUTELY SAFE!** The powerful heat generated is under absolute control at all times. **VERY ECONOMICAL** to operate, as the average oil consumption is only 1½ gals. per hour. Rigidly constructed, will last indefinitely. So light, compact and portable that it is easy to carry around, for the convenient web shoulder strap distributes the weight evenly.

The old method of cutting, mowing, raking, hauling and then burning weeds is obsolete. With an AEROIL WEED BURNER you can destroy all weeds where they stand — on the stalk, green — seeds and all. This is accomplished most rapidly by spraying or blighting the weeds with the flame in a rapid, walking application. This causes the weeds to dry up, wither and die, and should be followed several days later with another application when the dried out weeds can be quickly burned to ashes. By burning when the weeds are green, you eliminate the dangers of creeping fires or of bonfires made of dry weeds or brush. Burning is quick, sure and relatively inexpensive.

One man with an AEROIL WEED BURNER can destroy more weeds than five men with scythes or cutter bars and make a cleaner and better job of it because he not only destroys the weeds but *kills the roots as well as the seeds.*

Besides being a most effective Weed Burner, this tool can be used all the year round for 101 other burning, heating and thawing operations. Over 50,000 Aeroil Burners are in use and giving satisfaction.

Order an Aeroil Weed Burner today and demonstrate to yourself that you cannot afford to be without one. It will pay for itself over and over in its manifold uses. Satisfaction guaranteed or money back.

No. 99 AEROIL WEED BURNER. This outfit includes: — a 4 gal. FUEL and AIR TANK, tested at 100 lbs., made of copper-bearing, corrugated, galvanized steel; a 2 in. Diameter AIR PUMP; a 7 ft. Oil-Resisting RUBBER HOSE with brass nipples; a Snap-on WEB SHOULDER STRAP, and a SEAMLESS STEEL COIL OIL BURNER and WINDSHIELD with Bronze Regulating Valve. Shipped Complete as illustrated, all ready for instant use (shipping weight 21 lbs.)

\$20

Not prepaid, sent by express charges collect. 24 page catalog free.

Homecraft Department

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FAMOUS HUDSON'S BAY "POINT" BLANKETS

Were created 150 years ago to meet the exacting conditions, encountered by fur traders, in the frozen north, neither sleet nor snow, ice nor frigid rain can penetrate their perfect protection, and their colorful warmth, quickly became known as the standard for health insurance.

From then until now, these durable blankets have maintained their original inimitable qualities, actual samples of Hudson's Bay "point" Blankets 40 to 50 and even 60 years old are on record, as still giving unequaled service, and the label is a permanent guarantee of satisfaction, just as enduring as the first blanket made so long ago.

Their name is a magic phrase, that yesterday, today and always means the ultimate in rugged beauty, and enduring warmth and quality. The great outdoors merely caresses him who sleeps beneath a Hudson's Bay "point" Blanket.

Over 150 years ago, the Hudson's Bay Co., started making their genuine "point" Blankets. In those days, Indians traded furs for goods, short indigo lines

called "points" meant prices. Thus $3\frac{1}{2}$ marks or "points" meant three large and one small beaver skin. 4 "points" meant a price of four beaver skins.

Today points indicate size. Thus $3\frac{1}{2}$ "points" blankets measure 63 by 81 inches, and weigh 10 lbs. per pair. 4 "points" blankets measure, 72 by 90 inches, and weigh 12 lbs. per pair. Colors are, Scarlet; Multi-Stripe; Green; Khaki; White; Empire Blue; Camel; and Grey.

Hudson's Bay "point" Blankets, have a famous name, meaning supreme, blanket quality, they retain their beauty and are a lasting satisfaction, to those who delight in owning really fine things. We can supply a color folder, that will show these blankets in their several colors.

Until recently these blankets have always sold for \$30.00 to \$35.00 per pair. We consider them extra good values at the following low prices.

4 Point size, 72" x 90" \$12.85 post-paid, \$25.70 per pair.

$3\frac{1}{2}$ Point size, 63" x 81" \$10.85 post-paid, \$21.70 per pair.

Shipped within ten days from receipt of order, no discounts apply.

FROM A RECENT LETTER RECEIVED

It might interest you to know that we had a letter come to us unsolicited very recently telling about a Hudson's Bay Blanket which had been used for 75 years—part of the time as a tent cover—and that it was still in serviceable condition although frayed at the edges.

Supplies and Accessories

IMPORTANT NOTICE: All prices of merchandise we list is based on the wholesale prices, Fall of 1934. Should the manufacturer advance prices on our new supplies, we reserve the right to advance our prices without notice.

ETHYLENE DICHLORIDE — CARBON TETRACHLORIDE

Ethylene dichloride and Carbon tetrachloride gas comes in cans. It is a liquid and evaporates properly in a temperature of about 70 degrees to 75 degrees F.

It is not mailable, and must go by express, not prepaid. Our prices on small quantities, including can and cost of handling, is 20c per pound for the first 5 pounds, over that amount 18c per pound. Read instructions elsewhere. Read our article on thrips.

CALOGREEN: A preparation used as a dip for Glad bulbs for the control of scab; read what we say under "diseases". This is a poison, so not mailable, sent only by express, not prepaid. Prices at present are \$2.00 per pound, \$1.10 for one-half pound.

NAPHTHALENE FLAKES: Price is 8c per pound, not prepaid, you must allow full amount for postage or have it sent express collect. Directions for use: Use flakes at the rate of 1 ounce (4 level tablespoons) for every 100 bulbs, or 1 pound for 1000 bulbs. If you happen to use an overdose it will not harm your bulbs. Let them fumigate for four weeks, then remove the flakes from the bulbs. Do not use metal or glass of any kind, as this will cause dampness and result in damage. Also be sure to use the naphthalene before the bulbs sprout or the rootlets start growing, which often happens late in spring in particular in warm storage rooms. For small amounts of bulbs, place the bulbs in paper bags, add the flakes and then fold over and fasten tightly to retain all the fumes in the bag. Read our article on thrips.

CRUDE NAPHTHALENE: Price is 5c per pound; same terms; directions, etc., as for flakes, see above.

WARNING: Naphthalene should never be planted with your bulbs, as it does damage growing tissue, but does not harm the dry, dormant bulb. It is also best to let your bulbs become well cured or in a dry condition in the fall before using. Storage should be dry, airy and cool; below 50 F. is best. If colder, all the better, but keep the bulbs above 32 F. at all times, as below that point they freeze. If you fumigate larger lots, confine the fumes as much as

possible. To get the best results; cover with canvass, paper, etc.; anything but metal or glass or other substance that would cause the bulbs to sweat.

RAT SCENT: The greatest discovery in recent years, for poisoning rats, mice and moles, practically no odor, harmless to chickens, there is no bait to mix, it is an entire whole grain, never gets mouldy or wormy. Cats and dogs will not eat it, it comes ready prepared to use. Simply lay it where rats and mice are likely to find it. Rat Scent attracts and causes a craving for the material. It should not be left laying too long, if not eaten in a few days pick up and burn. 35c and 50c per box, prepaid when sent with an order of bulbs or other merchandise. If you want it sent separately, add 10c.

HAND SPADING FORKS: These are small hand forks, having three tines, about the length of a trowel, very useful in the garden. We use them in lifting bulblet stock, after the plants have been loosened with a spading fork, you can lift all the bulbs out of the soil without breaking off the light tops. 45c each when sent with an order. If mailed separately, 10c extra.

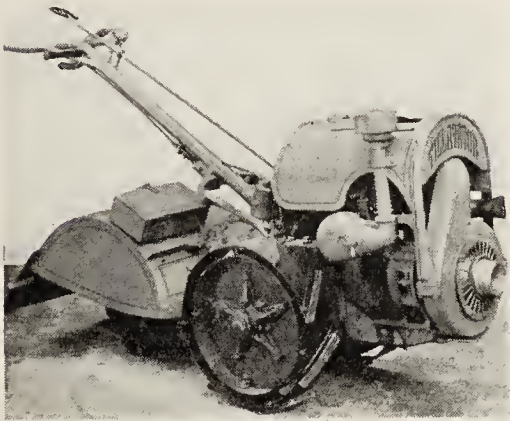
METAL LABELS: With heavy copper wires attached, sheet copper or aluminum, we supply a free stylus with each order, to emboss the name of your plants on the metal surface, can not be eradicated, will last for years. State metal wanted, copper or aluminum, prices prepaid, \$9.00 per 1000; \$1.00 per 100.

WOODEN TREE LABELS: Painted on one side, copper wired, write the variety name on the painted side with ordinary lead pencil; the prepared paint, will hold the lead marking, for at least one season. Best to renew wood labels, with each new planting. Prepaid prices, \$3.50 per 1000; 50c per 100.

IRON STAKES: No. 7 Wire, makes a heavy iron stake, galvanized, with loop at one end for attaching label, pointed at the other end, entire length 2 ft. \$2.00 per 100; \$15.00 per 1000, not prepaid, sent by express or freight.

Tillivator

A NEW VASTLY IMPROVED MACHINE TO PLOW HARROW AND CULTIVATE ALL IN ONE OPERATION. Built in Europe where it has been in use for many years. This machine is operated on an entirely different principal, than is plowing; it is equipped with tines and knives, that rotate rapidly, developes 5 h.p. at 1800 r.p.m. It CHURNS and PULVERIZES your soil. If you wish to apply manure to your land, by ordinary plowing, you turn all your manure that has been spread on top of the land, to the bottom



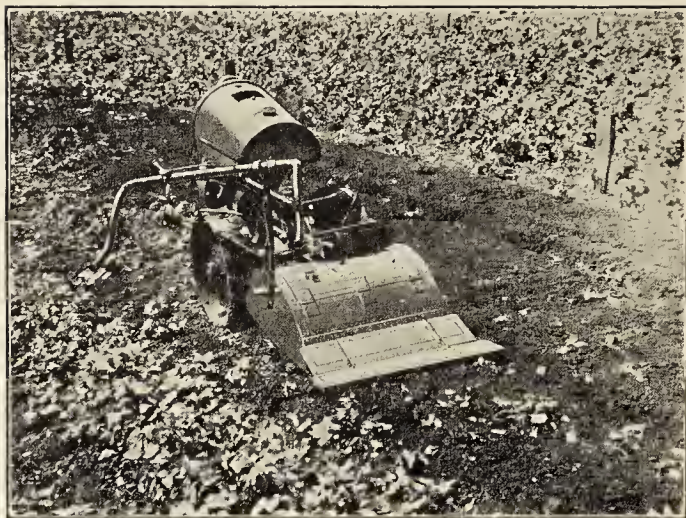
of the furrow, and the next season you turn it up again, but in "Tillivating" you spread your manure in the ordinary way, and it is all chopped, shredded and thoroughly mixed and incorporated in every part of your soil from top to bottom, of your tilled ground, and is therefore available to all kinds of plants, the shallow rooted as well as deep rooted plants, the roots find plant food wherever they reach. As manure has *more functions* than that of plant food alone,

all these functions become more operative, when you till with the Tillivator. There are no "air pockets" as result when you turn over a furrow with a plow, and there is no "plow sole" where the plow rides and cuts away the furrow. With the Tillivator in operation, the knives and tines rotating rapidly, cut, tear and shred, all that it contacts. Largely used by Nurserymen, for root pruning of Evergreens, and cultivating, as the tines may be regulated at any depth desired, and will make a fine, pulverized mulch an inch or two or can be set to plow as deep or deeper than ordinary plowing. Used by many large Greenhouses for shredding and mixing their soils. Invaluable to truck farms, bulb growers, florists, orchardists, grape and berry growers. Wonderful for use by landscape men, in grading and planting lawns, in fact, it is one of the most useful machines we have ever owned.

THE IDEAL SEED BED TILLER. Literature and full particulars furnished on application. We are distributors for Western New York, and will take care of requests from all parts of the country.

STURDY CONSTRUCTION, built like a high priced motor car, all gears enclosed and float in oil, fuel consumption, 5 to 6 gal. of gasoline per day. Capacity from 1 to 3 acres per day.

SEE ILLUSTRATION OF THE TILLIVATOR: On the outside back cover of this catalog. F. C. Hornberger, Clark Street, Hamburg, N. Y., (Distributor).



TILLIVATOR

See full details in catalog